United States Department of Agriculture

Forest Service

Northern Region

Record of Decision

Pilgrim Creek Timber Sale Project

Kootenai National Forest

Cabinet Ranger District

Sanders County, Montana

May 2013

Printed on Recycled Paper 

PILGRIM CREEK TIMBER SALE PROJECT

RECORD OF DECISION

TABLE OF CONTENTS

RECORD OF DECISION

PILGRIM CREEK TIMBER SALE PROJECT

USDA Forest Service, Northern Region
Kootenai National Forest
Cabinet Ranger District
Sanders County, Montana
May 2013

I. DECISION

This Record of Decision (ROD) documents my decision and rationale in the selection of management activities for the Pilgrim Creek Project Area. These activities will implement the 1987 Kootenai National Forest Land and Resource Management Plan (Forest Plan).

I am the responsible official for this project. The scope of my decision is limited to the specific timber harvest, road construction, road reconstruction, prescribed burning, access management, and related actions described in the Pilgrim Creek Timber Sale Draft Environmental Impact Statement (DEIS) and this Record of Decision (ROD). The decision I am making is site-specific. It is not programmatic and is not a general management plan for the area. The decisions I am making here do not preclude the need for future decisions to help meet the desired conditions for the Pilgrim Creek Project Area. Additional projects may be necessary to achieve Forest Plan goals not met by this decision. After appropriate analysis and public involvement, separate decisions will be issued on any actions not included in this decision.

After careful consideration of the potential impacts of the alternatives analyzed and documented in the Pilgrim Creek Timber Sale DEIS and public comments on this project, I have decided to implement **Alternative 3** as detailed in this section, including one project-specific amendment to allow open road density in Management Area 12 (big game summer range), to exceed standards during harvest related activities. Alternative 3 was identified in the DEIS as the Forest Service Preferred Alternative. Alternative 3 will be referred to in this document as the Selected Action. The appendices includes a map of Alternative 3.

Activities contained in the Selected Action are summarized below.

A. Decision Summary

Actions Associated with the timber sale and prescribed burning activities:

1. The selection of, and site-specific location of, appropriate timber management practices. Included in this decision will be silvicultural prescriptions, logging systems, fuels treatment, reforestation, riparian habitat conservation areas, road construction/reconstruction necessary to provide access and to achieve other resource objectives, including design features to protect resources.

Timber Harvest: Timber will be harvested from 42 units totalling approximately 1,434 acres, for a total volume of approximately 18 MMBF (24,544 CCF).

Logging Systems: Two logging systems will be employed to accomplish this harvest: tractor skidding on 551 acres, and skyline yarding on 883 acres.

Silvicultural Systems: Several silvicultural systems, including even-aged management, are included in this action. These include seedtree harvest on 512 acres; shelterwood harvest on 386 acres; commercial thinning on 510 acres; and intermediate harvest to enhance aspen on 26 acres.

Fuels Treatment: Harvest activity fuel treatments will occur on approximately 1,434 acres, and natural fuels reduction will occur on approximately 4,564 acres.

Reforestation: Tree planting will occur on 357 to 725 acres depending on site-specific conditions. Natural regeneration is expected on approximately 541 acres.

Road Construction/Reconstruction: A Travel Analysis Process was used to address existing and future road management options, and the level of construction is supported by this analysis (see Project File). The amount of road needed to provide access for timber harvest includes approximately: 4.7 miles of new permanent road construction; 47 miles of system road reconstruction; and 1.1 miles of new temporary road construction. All newly constructed temporary roads will be recontoured.

I have decided to implement all of the activities listed under the heading of **FEATURES COMMON TO ALL ACTION ALTERNATIVES** found on pages 2-34 to 2-43 of the DEIS. This includes the administrative reclassification of a number of impassable, non-system unclassified roads as decommissioned. These 49 segments totaling approximately 21 miles, have been identified through the Travel Analysis Process as being unneeded for long-term forest management. These roads are currently stable with no sediment or resource concerns and are grown in with trees and other vegetation. A list of these road segments is included on page 2-42 of the DEIS. I have also decided to include all planned Design Features described in the DEIS on pages 2-44 through 2-49 to reduce potential impacts and to avoid potential resource damage.

2. The selection of, and site-specific location of road access restrictions or other actions necessary to meet big game species and grizzly bear needs.

The management activities included in Alternative 3, require the use of roads that are currently open year-round to motorized access as well as roads that are restricted year-round to public motorized access. At the present time, open road density (ORD) for MA-12 in the project area exceeds the Forest Plan Standards. While harvest-related activities are occurring, the open road density in MA-12 will increase over the current conditions, and for this situation, I have approved a project-specific amendment to the Forest Plan. This MA-12 ORD amendment permits activities to take place that improve the cover/forage ratio for elk, and increase forage for grizzly bears. I have also decided to implement the specific access management actions for Alternative 3 as outlined in the DEIS, Appendix C.

3. The selection of Forest Plan amendments are necessary to meet the specific purpose and need of this project, and a determination as to whether those amendments are significant under NFMA.

I have decided to approve one project-specific Forest Plan amendment which will increase MA-12 standards to allow for a open road density of 2.6 miles per square mile outside of the Stevens Ridge Amendment Area during activity periods for Pilgrim Creek Timber Sale Project implementation. I have determined that this is a non-signficant Forest Plan amendment. (See Consistency With Forest Plan)

4. The selection of, and site-specific location of noxious weed control measures.

I have decided to implement the specific noxious weed treatment activities as detailed under Additional Design Feature Details on page 2-46 of the DEIS, and under Monitoring for All Action Alternatives on page 2-52 of the DEIS.

5. The selection of, and site-specific location of prescribed burning.

I have decided to implement the **Prescribed Burning of Natural Fuels on 4,564 acres** as detailed in under FEATURES COMMON TO ALL ACTION ALTERNATIVES on pages 2-39 and 2-40 in Chapter 2 of the DEIS. A maps showing the specific location of these activities is included in this Record of Decision as well as being in Chapter 2 of the DEIS. Approximately 3,252 acres will be burned within the Huckleberry Mountain #699 and Lone Cliff Smeads #674 Inventoried Roadless Areas. The prescribed burning will be done to improve big game forage quality and quantity.

6. The selection of specific project monitoring requirements needed to assure design criteria are implemented and effective.

I have decided to implement the specific project monitoring requirements detailed in Appendix J of the DEIS.

II. OVERVIEW OF THE DECISION AREA

The planning area covers 36,602 acres (29,987 acres of public land and 6,615 acres of private lands) within the Kootenai National Forest in Sanders County, approximately five air miles west of Noxon, Montana. The legal location of the National Forest System (NFS) lands within the decision area are as follows:

All or portions of Sections 6 - 9, 16, 17, and 21, T25N, R32W; Sections 1 - 12, 14 - 17, T25N, R33W; Sections 1 and 12, T25N, R34W; Sections 16,17, 20 - 22, 26 - 36, T26N, R33W; and Sections 26, 35, and 36, T26N, R34W, Principal Montana Meridian.

The project area consists of NFS lands in and adjacent to the Pilgrim Creek drainage, which drains into the Clark Fork River, a tributary of the Columbia River basin. The primary point of access from State Highway 200 is the Pilgrim Creek Road #149, which accesses the drainage and includes a number of minor roads into private land.

The project area includes Pilgrim Creek and its tributaries- Fourmile Gulch, Baxter Gulch, Telegraph Creek, Skeleton Creek, West Fork Pilgrim and South Fork Pilgrim, as well as Smeads Creek, Stevens Creek, and smaller tributaries, some of which drain directly into the Clark Fork River. Some landowners downstream of the project area use water from springs and creeks for domestic use and stock use.

Area Attributes: Four attributes stand out when visiting the Pilgrim Creek Area:

1. Vegetation communities are primarily forested, bisected by streams and ridges.The majority of present day forest cover in the project area originated from the large fires of 1889 and 1910. Fire suppression since that time has reduced the influence of fire on forest dynamics which has led to increased fuel loadings, higher stocking levels, and an increasing presence of shade-tolerant trees in the understory. The adjacent privately owned lands are a mix of forested, non-forested, and pastoral or agriculture land which is typical of rural development in this area. Insects, particularly mountain pine beetles, are currently infesting a high proportion of the lodgepole pine stands in the area causing significant tree mortality.

2. The two major drainages, Pilgrim Creek and Stevens Creek, are east/west oriented third order streams. Pilgrim Creek was heavily impacted by the 1910 fire and the subsequent floods of 1916.

3. Approximately 18 percent of the Pilgrim Creek project area is in private ownership and includes the community of Noxon. These private lands are occupied by a mix of year-round and seasonal residents.

4. National Forest Systems lands in the project area have long been utilized by residents and visitors for recreation, firewood gathering, hunting, hiking, camping, and huckleberry picking.

Forest Vegetation: Ponderosa pine, western larch, and western white pine were the predominant tree species before European settlers arrived in Montana. Pine and larch are more resistant than fir to many insects and diseases as well as fire. Pine and larch were also the most valuable trees, and were cut by early timber harvesters, thereby changing the mix of tree species in the forest. Large wildfires in 1889 and 1910 consumed much of the forest in the local area and the firs were among various tree species that naturally regenerated the area following the fires. Years of fire suppression activities followed these large, intense wildfires, and allowed the fir to out-compete the pine and larch. Today the warm and moist regions of the Clark Fork Valley are dominated by Douglas-fir and grand fir. Much of the area is currently in mid-successional status, with even-aged stands of relatively high densities.

Mountain pine beetle continues to increase in lodgepole stands of the analysis area. A site visit by a regional pathologist confirmed that “a significant amount of MPB-caused tree mortality will probably occur over the next 2 years, barring any unusual weather circumstances” (USDA, 2010). This is expected as populations are at extremely high levels in surrounding Forests including the Idaho Panhandle, Flathead, Lolo, Helena, etc. It is expected that infestation in the project area will increase for a few years, until the majority of the susceptible hosts are infected.

Several root diseases such as *Armillaria ostoyae, Phellinus weirii, Phaeolus schweinitzii* and *Fomes annosus* are found in the area. Much of the area is currently affected by some level of root disease. Low infection

rates are most common, with moderate to severe root disease is present in certain areas such as Tuscor Hill, Skeleton Creek, and Smeads Creek. These cause substantial mortality in both Douglas-fir and grand fir, as these tree species are very susceptible to root disease, and in several cases the annual volume loss exceeds the annual growth.

Wildlife and Fisheries: Populations of elk and whitetail deer (both management indicator species) are present throughout the area with smaller populations of moose present. Mountain lion, black bear and other common forest animals are present. Gray wolves and grizzly bears are known to be at least occasional visitors to the area. A wide range of bird species use the area.

Native fish species present include westslope cutthroat trout, bull trout, large scale sucker, long nose dace, mountain whitefish, northern pikeminnow, and slimy sculpin.

Developed/Undeveloped Areas and Human Uses: Road construction and timber harvest have occurred within the project area. Established road systems that access the project area include: Pilgrim Creek #149, Stevens Ridge #2214, Stevens Creek #2229, Smeads Bench #2706, West Fork Pilgrim Creek #2744, and Stevens Ridge Trail #2746. Sections of these roads are managed and maintained as National Forest System roads open to the public. The remainder of the forest roads are generally single-lane native surface roads, closed yearlong or seasonally restricted. Typically these roads will be passable only during the drier months of the year using a high clearance vehicle. There are also some historic logging and mining roads which have revegetated and are no longer usable as travelways.

A network of approximately 176 miles of road exists within the Pilgrim Creek Project Area. Of this, approximately 71 miles are National Forest System roads, 30 miles are County roads, 31 miles are under private ownership and the remainder are historic or undetermined roads that are no longer driveable. Approximately 10 miles of National Forest System roads are currently being managed with seasonal restrictions, 27 miles are restricted yearlong to protect big game summer range and 34 miles are managed as open roads.

The Pilgrim Creek Area provides many opportunities for the recreationist. Driving to view the scenery and wildlife is important to local residents. Firewood gatherers, hunters, horseback riders, sightseers, snowmobilers, and huckleberry pickers are but a short list of those who use the area. The area includes the Huckleberry Mountain #699 and Lone Cliff Smeads #674 Inventoried Roadless Areas (IRA). Only prescribed burning is proposed within these IRAs. In addition, the area contains dispersed recreation sites located along open forest roads.

As of February 2011, Active mining claims in the project area include the Holliday mine complex (eight claims) located in the West Fork Pilgrim Creek; the Thanksgiving claim located north of the lower Pilgrim Creek road in Section 26; and the Shalkako claim located between Pilgrim Creek and Stevens Creek in Section 2. The mines have not been in operation since the 1960s. Annual assessments are being done, but more extensive operations are unlikely in the near future. The District archeologist has recorded the Holliday mine site and details can be found in the district files. There are no patented claims within the Forest boundary in the project area.

III. DESIRED CONDITIONS AND NEED FOR ACTION

The Kootenai National Forest Plan includes a statement of the Desired Condition (DC) for the Forest. The Forest Plan discussion of DC is broad in nature and addresses conditions at the end of the first and fifth decades of the life of the plan. Management Area-specific goals and standards found in Volume1, Chapter III of the Kootenai Forest Plan. The DC provides resource managers with a view of where they should be directing their management efforts in order to meet the multiple resource demands of the future.

These DCs are expressed by Vegetative Response Units (VRUs), the currently accepted system of expressing DCs in ecological terms. These DCs are based or derived from historic conditions modified to consider current resource capabilities such as watershed, wildlife, and scenic resources. They present options for managers to move forest stands within individual VRUs toward a more desirable and sustainable future condition.

The Interdisciplinary Team's strategy to move from the existing condition toward the Desired Condition includes a variety of activities that focus on managing the over-abundance of mid-successional stands, shade tolerant tree species, developing both early and late successional communities, and increasing representation of root disease resistant species.

A. Purpose and Need

Current forest conditions in the proposed treatment areas are generally dense and overcrowded from years of fire suppression, and dominated by Douglas-fir. The absence of fire in the project area, altered composition due to insects and diseases, and natural succession have led to in-growth of fire-vulnerable tree species in the shaded understories and reduced the amount and quality of available big game forage.

By comparing the existing conditions to the Forest Plan desired conditions, a number of specific resource conditions that do not meet long-term management objectives were identified. The Purpose and Need for action and resulting Proposed Action (Alternative 2) were designed to modify these conditions and move towards achieving desired conditions.

The Purpose and Need for the Pilgrim Creek Timber Sale Project is to:

- *There is a need for silvicultural treatments to reduce stand densities, improve growing conditions, and increase the proportion of root disease-resistant tree species in the area.*

- *There is a need to increase age class diversity in lodgepole pine dominated forest communities in the project area.*

- *There is a need to provide local employment related to forest management and restoration activities and to supply forest products to contribute to the support of that segment of the local and regional economy dependent on timber products.*

- *There is a need to improve forage production and quality through the use of such treatments as commercial timber harvest, slashing, and prescribed fire.*

The IDT's strategy to move from the Existing Condition toward the Desired Condition is to apply a variety of management activities that focus on reducing the 90-100 year old Douglas-fir and grand fir that dominate the landscape (mid-successional stands), developing both early and late successional communities. These stands dominated by shade-tolerant tree species are currently decreasing the regeneration potential of seral species, specifically ponderosa pine and western larch. Appropriate management practices will increase the chances that these species can be retained into the future and thus provide a more resilient and sustainable forest.

The Purpose and Need would be achieved by:

1) Creating early successional stages through regeneration in stands that are highly infected by root disease, and reforest with species that are less susceptible to these root pathogens including western larch, ponderosa pine, and western white pine.

2) Commercial thinning selected stands which are being impacted by root disease, to remove the more susceptible species, and leave enough root disease-resistant trees so that the resulting forest stand is fully-stocked and composed of more disease resistant species.

3) Increasing the age class diversity, to provide a variety of stand ages across the landscape help build resilience and help ensure long term retention of lodgepole pine-dominated forest communities.

4) Increasing early successional habitats that provide a variety of abundant forage plants. Prescribed burning treatments would focus on expanding the incidence of big huckleberry, red stem ceanothus, rocky mountain maple, serviceberry, and willow in the appropriate habitat, and cover to forage ratios of 60/40 on winter and summer range as recommended by the Kootenai Forest Plan.

Commercial timber harvest is the primary method proposed for the Pilgrim Creek Timber Sale Project to accomplish vegetative management objectives. Harvest will be used in conjunction with fuel treatments and reforestation to meet the Purpose and Need to enhance and maintain vegetative communities. The reason for this choice of methods is based on four primary factors:

1) Size and age of material – the majority of the vegetation to be treated is 90 to 100 year old Douglas-fir, grand fir, mountain hemlock, and lodgepole pine. The majority of the material is over 8 inches in diameter (dbh) with an average diameter of 11 to 12 inches, making it sawtimber size.

2) Treatment economics – the timber sale is an economic method to accomplish treatment objectives. Stand densities are reduced, funds are collected to accomplish reforestion and fuels reduction, and roads are improved or maintained, while in most situations generating additional revenue. The timber harvested also provides direct employment in the timber industry and induced employment in other businesses (DEIS pages 3-340 and 3-341). Otherwise, the availability of funds to accomplish rehabilitation projects or large-scale prescribed burning of natural fuels would be entirely dependent on appropriated funding, which is not presently assured.

3) Product utilization – The material to be removed by vegetation management treatments is an economically valuable product. The timber harvested helps to supply the raw materials needed for the home construction industry, paper products, and other miscellaneous uses of wood, and reduces the Nation's dependence on foreign countries for these materials.

4) Undesirable effects produced by other methods, such as prescribed fire - Densely stocked stands of Douglas-fir and other conifers are prone to crown fire when they do burn. With the current condition of contiguous closed canopies in even-aged stands, crown fires have the potential to intensely burn large areas. This is not desireable to most of the public nor to land managers. Reductions in fuel loading and tree density without pretreatment through timber harvest, could not be accomplished without severe fire behavior, soil impacts, and potential damage to private property (DEIS pages 2-6 and 3-145 through 3-157).

IV. BRIEF DESCRIPTION OF ALTERNATIVES

The Pilgrim Creek Timber Sale Project Interdisciplinary Team (IDT) analyzed the issues during scoping to develop a range of action alternatives that would meet the Purpose and Need for Action and be responsive to the environmental issues and public concerns. In developing the range of alternatives, the IDT focused the proposed action on meeting the most critical need to maintain and increase forest resilience to insects, disease, while being responsive to concerns over road construction, open road density on big game summer range, and the creation of large openings. This focus narrowed the number of issues which limited the range of feasible alternatives
In deciding which management practices to implement in the Selected Action, I considered four "action" alternatives and the "No Action alternative." These five alternatives provide a reasonable range of alternatives. In addition, one other alternative was considered but not studied in detail (DEIS, page 2-6). The following discussion summarizes the alternatives considered. Chapter 2 of the DEIS contains a complete description of the alternatives and process used to identify them.

A. Alternatives Considered but Eliminated from Detailed Study

An alternative was developed by the IDT during the analysis process to "restore the Pilgrim Creek Planning Area using prescribed fire only". This alternative contributed to the range of alternatives, but was eliminated from detailed analysis. This alternative responds to concerns of using commercial timber harvest as a treatment method. Under this alternative, only prescribed fire would be used to thin conifers and reduce fuel loadings. However, given the proximity to private land, tree density, and fuel loadings that have resulted from many decades of fire suppression, the use of fire alone presents an unacceptable risk to both private and federal lands, and is not a responsible option at this time. I reviewed the rationale for elimination of this alternative from detailed analysis in the DEIS and I agree with the IDT that this alternative was not reasonable at this time in this area, and it responded to only one element of the Purpose and Need (forage production).

B. Alternatives Considered in Detail

ALTERNATIVE 1 - (NO ACTION)

Purpose/Design: The National Environmental Policy Act (NEPA) requires that an EIS include a "No Action" Alternative to serve as a baseline to compare action alternatives. The No Action Alternative is based on the premise that ecosystems change, even in the absence of active management. It is essentially a "status quo" strategy that allows current activities and policies, such as recreation administration, road maintenance and fire suppression, to continue, and contains no actions listed in the action alternatives described below. This alternative provides a baseline for comparison of environmental consequences of the other alternatives to the existing condition (36 CFR 1502.14) and is an opportunity to analyze the environmental and social effects of not treating vegetation in the area. It is a management option that I could select as the "Responsible Official".

ALTERNATIVE 2 - PROPOSED ACTION

Purpose/Design: This alternative is the original Proposed Action designed to address the Purpose and Need, summarized in the DEIS on pages 1-4, through 1-6. The Pilgrim Creek drainage was identified as an area of concern from a forest health perspective. An Interdisciplinary Team (IDT) comprised of Forest Service resource specialists developed this project while working with interested stakeholders.

Alternative 2 Treatment Summary

Road Construction	**Miles**
New Permanent Construction	2.4
Road Reconstruction	47.0
Temporary	1.6
Timber Harvest Acres by Harvest Method	**Acres**
Intermediate Harvest	
Commercial Thinning	796
Aspen enhancement	28
Regeneration Harvest	
Seed Tree with Reserves	292
Shelterwood with Reserves	295
Total Acres Treated with Timber Harvest	1,411
Total Harvest Volume – MMBF	14.3
Logging Systems	**Acres**
Tractor	431
Skyline	980
Other Vegetation Treatments	**Acres**
Reforestation (Tree planting)	357 to 725
Fuel Treatment	**Acres**
Underburning of activity fuels	427
Broadcast burning of activity fuels	207
Excavator Piling of activity fuels	370
Lop and Scatter activity fuels	407
Natural Fuels Underburn	4,564

Forest Plan Amendments: Alternative 2 includes two Forest Plan project specific amendments which would (1) suspend cavity habitat requirements in 15 acres of MA 10 (big game winter range); and (2) amend MA 12 (big game summer ranger) standards to allow for a open road density of 2.3 miles per square mile during activity periods associated with the Pilgrim Creek Timber Sale Project.

Inventoried Roadless Area: Approximately 3,252 acres of natural fuels would be treated by prescribed fire in the Huckleberry Mountain #699 and Lone Cliff Smeads #674 Inventoried Roadless Areas.

Regional Forester's Approval: This Alternative would create a total of eight areas which would result in openings which exceed 40 acres in size either by the proposed harvest or in conjunction with existing openings. They would total 585 acres in size.

ALTERNATIVE 3 - PREFERRED ALTERNATIVE

Purpose/Design: This action alternative is a modification of the Proposed Action and is the preferred alternative. It addresses concerns related to how to economically address the growing impacts of mountain pine beetles on lodgepole pine communities. Alternative 3 places more emphasis on salvage of lodgepole pine resulting in an increased level of regeneration harvest and the creation of more openings larger than 40 acres. Regeneration harvest is also proposed in areas where root disease levels were found to be higher than desired when considering intermediate harvest. This alternative would also require a Forest Plan amendment to exceed open road density on big game summer range, and would also require approval to create six openings greater than 40 acres.

Alternative 3 Treatment Summary

Road Construction	**Miles**
New Permanent Construction	4.7
Road Reconstruction	47.0
Temporary	1.1
Timber Harvest Acres by Harvest Method	**Acres**
Intermediate Harvest	
Commercial Thinning	510
Aspen enhancement	26
Regeneration Harvest	
Seed Tree with Reserves	512
Shelterwood with Reserves	386
Total Acres Treated with Timber Harvest	1,434
Total Harvest Volume – MMBF	18.0
Logging Systems	**Acres**
Tractor	551
Skyline	883
Other Vegetation Treatments	**Acres**
Reforestation (Tree planting)	357 to 725
Fuel Treatment	**Acres**
Underburning of activity fuels	505
Broadcast burning of activity fuels	93
Excavator Piling of activity fuels	481
Lop and Scatter activity fuels	355
Natural Fuels Underburn	4,564

Forest Plan Amendments: Alternative 3 includes one Forest Plan project-specific amendment which would allow an increase in open road density on big game summer range (MA 12) outside of the Stevens Ridge Amendment Area- roughly the north half of the Pilgrim Creek Project Area. Alternative 3 would result in a maximum ORD of 2.6 miles per square mile during operations, and ORD would drop back to the current 1.9 miles per square mile post-project.

Inventoried Roadless Area: Approximately 3,252 acres of natural fuels would be treated by prescribed fire in the Huckleberry Mountain #699 and Lone Cliff Smeads #674 Inventoried Roadless Areas.

Regional Forester's Approval: This Alternative would create a total of six areas which would result in openings which exceed 40 acres in size either by the proposed harvest or in conjunction with existing openings. They would total 922 acres in size.

ALTERNATIVE 4

Purpose/Design: This alternative is a modification of the proposed action developed to address issues associated with road construction by dropping all new road construction. This alternative also emphasizes treatment in lodgepole pine stands affected by mountain pine beetle that could be accessed from the existing road system. Implementation of this alternative would also result in several openings exceeding 40 acres in size, for which Regional Forester approval is required. Upper Pilgrim Creek is the main area where the mortality in lodgepole pine by mountain pine beetle is considered moderate to high in severity. The remaining areas of proposed regeneration harvest over 40 acres occur in root disease areas

Alternative 4 Treatment Summary

Road Construction	**Miles**
New Permanent Construction	0.0
Road Reconstruction	47.0
Temporary	0.0
Timber Harvest Acres by Harvest Method	**Acres**
Intermediate Harvest	
Commercial Thinning	451
Aspen enhancement	26
Regeneration Harvest	
Seed Tree with Reserves	303
Shelterwood with Reserves	510
Total Acres Treated with Timber Harvest	1,290
Total Harvest Volume – MMBF	15.6
Logging Systems	**Acres**
Tractor	550
Skyline	740
Other Vegetation Treatments	**Acres**
Reforestation (Tree planting)	383 to 591
Fuel Treatment	**Acres**
Underburning of activity fuels	333
Broadcast burning of activity fuels	90
Excavator Piling of activity fuels	397
Lop and Scatter activity fuels	470
Natural Fuels Underburn	4,564

Forest Plan Amendments: Alternative 4 includes two Forest Plan project specific amendments which would (1) suspend cavity habitat requirements in 6 acres of MA 10 (big game winter range); and (2) allow an increase in open road density on big game summer range (MA 12) outside of the Stevens Ridge Amendment Area- roughly the north half of the Pilgrim Project Area. Alternative 4 would result in a maximum ORD of 2.4 miles per square mile during operations, and ORD would return to the current 1.9 miles per square mile post-project.

Inventoried Roadless Area: Approximately 3,252 acres of natural fuels would be treated by prescribed fire in the Huckleberry Mountain #699 and Lone Cliff Smeads #674 Inventoried Roadless Areas.

Regional Forester's Approval: This Alternative would create a total of five areas which would result in openings which exceed 40 acres in size totaling 871 acres.

ALTERNATIVE 5

Purpose/Design: This alternative is a modification of the Proposed Action that was designed to examine an alternative that did not build new roads, would not require any Forest Plan amendments, and does not create openings over 40 acres in size. It emphasizes the harvest of dead and dying lodgepole to the extent that is feasible from existing roads.

Alternative 5 Treatment Summary

Road Construction	**Miles**
New Permanent Construction	0.0
Road Reconstruction	47.0
Temporary	0.0
Timber Harvest Acres by Harvest Method	**Acres**
Intermediate Harvest	
Commercial Thinning	371
Aspen enhancement	26
Regeneration Harvest	
Seed Tree with Reserves	130
Shelterwood with Reserves	131
Total Acres Treated with Timber Harvest	632
Total Harvest Volume – MMBF	10.3
Logging Systems	**Acres**
Tractor	383
Skyline	249
Other Vegetation Treatments	**Acres**
Reforestation (Tree planting)	122 to 181
Fuel Treatment	**Acres**
Underburning of activity fuels	216
Broadcast burning of activity fuels	82
Excavator Piling of activity fuels	219
Lop and Scatter activity fuels	115
Natural Fuels Underburn	4,564

Forest Plan Amendments: No Forest Plan amendments are required for Alternative 5.

Inventoried Roadless Area: Approximately 3,252 acres of natural fuels would be treated by prescribed fire in the Huckleberry Mountain #699 and Lone Cliff Smeads #674 Inventoried Roadless Areas.

Regional Forester's Approval: No approval is needed as contiguous openings would be kept to less than 40 acres.

Comparison of Purpose and Need Objectives by Alternative

The following tables compare the alternatives in relation to how they address the purpose and need for action, and how they address the issues by units of measure.

UNITS OF MEASURE	ALT 1 (No Action)	ALT 2	ALT 3	ALT 4	ALT 5
Purpose and Need– There is a need for silvicultural treatments to reduce stand densities, improve growing conditions, and increase the proportion of root disease-resistant tree species in the area.					
Total Acres Treated with Timber Harvest	0	1,411	1,434	1,292	632
Acres of Regeneration Harvest	0	587	898	813	261
>40 acre openings (in acres) impacted by root disease	0	390	408	364	0
Acres Commercially Thinned	0	796	510	451	371
Aspen enhancement	0	28	26	26	26
Harvest Acres Accessed by New Road Construction	0	352	551	0	0
Harvest Acres Accessed by Temporary Roads	0	138	137	0	0
Purpose and Need – There is a need to increase age class diversity in lodgepole pine dominated forest communities in the project area					
Acres of lodgepole pine treated to address bark beetle mortality	0	276	588	430	139
Acres Planted	0	357 to 725	357 to 725	383 to 591	122 to181
>40 acre openings (in acres) impacted by bark beetles	0	196	643	507	0
Purpose and Need – There is a need to provide local employment related to forest management and restoration activities and to supply forest products to contribute to the support of that segment of the local and regional economy dependent on timber products					
Estimated harvest volume°	0	14.3 MMBF (19,484 CCF)	18.0 MMBF (24,544 CCF)	15.6 MMBF (21,288 CCF)	10.3 MMBF (7,012 CCF)
Acres of Tractor Logging	0	431	568	550	249
Acres of Skyline Logging	0	980	948	740	383
Total employment (persons) as a result of implementation	0	120	148	131	51
Present net value, timber harvest and required design criteria	$0	-$553,633	-$356,884	$56,822	-$289,444
Present net value, timber harvest and other planned activities	$0	-$735,755	-$539,006	-$238,944	-$471,566
Purpose and Need – There is a need to improve forage production and quality through the use of such treatments as commercial timber harvest, slashing, and prescribed fire					
Acres treated using prescribed fire[1]	0	4,564	4,564	4,564	4,564
MA-10 acres burned[1]	0	2634	2634	2634	2634
MA-10 acres harvested	0	15	0	6	0
MA-11 acres burned[1]	0	115	115	115	115
MA-11 acres harvested	0	79	43	91	3
MA-12 acres burned[1]	0	903	903	903	903
MA-12 acres harvested	0	1317	1391	1193	629
Acres burned in IRA[3]	0	3,252	3,252	3,252	3,252
Purpose and Need – There is a need to improve forage production and quality through the use of such treatments as commercial timber harvest, slashing, and prescribed fire					
Cover:Forage Ratio Summer Range (Guide 60:40)	79:21	76:24	75:25	76:24	78:22
Cover:Forage Ratio Winter Range (Guide 60:40)	73:27	72:28	72:28	72:28	73:27

° MMBF = million board feet CCF = hundred cubic feet.

[1] acres burned are based only on management ignited fires

[3] IRA = Inventoried Roadless Area

Comparison of Issues by Alternative

UNITS OF MEASURE	ALT 1 No Action	ALT 2 Proposed Action	ALT 3	ALT 4	ALT 5
Issue 1 – Construction of new permanent and temporary roads					
System road reconstruction (miles)	0	47	47	47	47
New system road construction (miles)	0	2.4	4.7	0	0
New temporary road construction (miles)	0	1.6	1.6	0	0
Miles of Forest Service roads open year-round to the public	34.0	34.0	34.0	34.0	34.0
Total miles of seasonally restricted Forest Service roads	10.0	10.0	10.0	10.0	10.0
Issue 2 – Open Road Density in Big Game Summer Range (MA-12)					
Open road density in MA-12 within Stevens Ridge amendment area during project (mi/mi²)	1.2	1.7	1.7	1.5	1.2
Open road density in MA-12 outside Stevens Ridge amendment area during project (mi/mi²)	1.9	2.3	2.6	2.4	1.9
Open road density in MA-12 post-project (mi/mi²)	1.9	1.9	1.9	1.9	1.9
Big game security cover post- project (guide $\geq$30%)	50%	47%	41%	48%	50%
Planning Sub-unit open road density (mi/mi^2) (std. $\leq$ 3.0)	1.8	2.4	2.4	1.8	1.8
Issue 3 – Openings over 40 acres in size					
Total number of openings >40 acres	0	8	6	5	0
Total opening acres	0	585	922	871	0
Issue 3 – Watershed/Fish Habitat					
Total road density in Pilgrim Creek drainage (miles/mile^2)	2.8	2.8	2.9	2.8	2.8
Peak flow increase over natural for Pilgrim Creek planning area	2%	4%	5%	5%	4%
Miles of road with BMP upgrades	0	28.67	28.72	28.72	28.67
Total percent reduction in sediment leaving RHCA buffer	0	376.3	376.3	376.3	376.3
Number of new stream crossings following implementation	0	1	2	0	0
Issue 5 – Old Growth					
Acres of prescribed fire underburns in designated old growth	0	530	530	530	530
Acres of timber harvest in designated old growth	0	0	0	0	0
Miles of new permanent roads in designated old growth	0	0	0	0	0
Miles of temporary roads in designated old growth	0	0	0	0	0

V. RATIONALE FOR THE DECISION

Management of a large and complex land base such as the Kootenai National Forest requires me to make decisions on projects which elicit conflicting desires from the public. Competing demands placed on the Forest Service dictate that I make decisions for the responsible management of ecosystems that fulfill the mission of the Forest Service and meet the requirements of law and regulation. In making these decisions, I ask the public for comments to guide the project design and analysis. Every effort is made to develop and choose an alternative that best responds to the components of the Purpose and Need, is responsive to public and agency concerns, and maintains key resource values.

My decision to choose Alternative 3 is based upon three principal criteria:

A. Consistency with Forest Plan goals, objectives, and standards. The Forest Plan represents an agreement with the public on the management and use of the Kootenai National Forest. It is a negotiated understanding with a variety of individuals, organizations, agencies, and American Indian tribes who represent a wide variety of opinions, values and beliefs. I viewed the achievement of the desired conditions described by the Forest Plan for this area as a decision goal. The rate at which Forest Plan implementation occurs is also a key element in my decision.

B. The relationship to environmental issues and public comments. Organizations, agencies, elected officials, and the general public submitted comments that identified issues during project development. As a result, I took a hard look at the environmental issues and how they were addressed by each alternative. In a number of cases, public and agency comments helped me identify a reasonable range of alternatives and necessary design criteria and mitigation requirements. Overall, public comments provided me the necessary framework to base my decision.

C. Compatibility with other agency and American Indian Tribe goals was another important factor in my decision making process. Consultation with the Kootenai and Salish Tribes, and the U.S. Fish and Wildlife Service were considered in making my decision.

A. CONSISTENCY WITH FOREST PLAN GOALS, OBJECTIVES, AND STANDARDS

I evaluated the alternatives considered and compared them to Forest Plan goals, objectives, and standards for the Pilgrim Creek Project Area. Several considerations pertaining to implementing the Forest Plan are reflected in my decision:

1. Rate of Forest Plan Implementation and Achievement of Management Area Goals

The Need for Action and desired conditions of the Pilgrim Creek Timber Sale Project Area are based on Forest Plan goals, objectives, and standards. With the exception of Alternative 1 (No Action), all alternatives result in "movement" toward desired conditions described in the Forest Plan. All action alternatives respond in various ways to the need for action by maintaining and increasing forest resilience to insects, disease and disturbance by increasing age class diversity in lodgepole pine stands, improving growing conditions and favoring root disease resistant species in mixed conifer stands affected by root disease, and improving big game forage production while providing support to the local economy through commercial timber harvest.

I determined it is inappropriate to select Alternative 1 for implementation since it does not respond to the Purpose and Need for Action, will not move toward Forest Plan desired conditions, and will not meet Forest Plan goals (Forest Plan, Volume 1, pg II-1, II-2 and DEIS pages 1-5, 1-6), such as the Forest Plan goal to "*provide a sustained yield of timber volume responsive to National and Regional needs, scheduled to encourage a stable base of economic growth in the dependent geographical area*"; or the Forest Plan goal to "*Harvest the maximum amount of high risk lodgepole pine marketable, to minimize losses from the mountain pine beetle*"; or the Forest Plan goal to "*Maintain big game habitat to support the recreational hunting demand for resident big game species*". Alternative 1 would not meet Timber Objectives (page II-4) which include "*Insects and disease will be controlled to historic endemic levels, and lodgepole pine will be harvested prior to future outbreaks of mountain pine beetle. Other problems such as root rot, mistletoe, blister rust, and spruce budworm will be addressed in silvicultural prescriptions utilizing integrated pest management strategies and treatments*".

Furthermore, the environmental consequences of not taking action are not acceptable relative to these goals (DEIS, Chapter 3). The No Action alternative would not achieve the desired conditions identified on page 1-4 of the DEIS. Furthermore, I did not feel this alternative was responsive to the concerns of local communities expressed during public involvement (see public comments included in the project file). In addition, Alternative 1 does nothing for the long-term vegetation management of the project area, as age classes and species composition would continue to trend away from reference conditions. Fire-adapted species such as ponderosa pine and western larch would continue to decline as encroachment by shade-tolerant species, prone to insect and disease damage increased (DEIS page 3-30). The accumulation of fuels from existing and expected deadfall would likely increase the intensity of a fire in the future.

I evaluated the remainder of the alternatives to determine how well they respond to the Purpose and Need for Action. Since the Purpose and Need for Action was developed to respond to Forest Plan goals, objectives, and standards, I used it as an indicator of Forest Plan implementation. I did not eliminate any of the action alternatives based solely on whether or not they responded to the Purpose and Need for Action. As described in the following section, all the action alternatives responded to the Purpose and Need for Action to some degree. It is important to note, however, that how ***well*** the alternatives responded to the Purpose and Need for Action did play a part in my final decision:

a. <u>There is a need for silvicultural treatments to reduce stand densities, improve growing conditions, and increase the proportion of root disease-resistant tree species in the area.</u>

The landscape is currently dominated by mid-successional stands; a scenario that, in all probability, never existed before. In addition, within-stand conditions are considered outside the range of historic conditions. These stands currently have crowded understories dominated by shade-tolerant, root disease-prone species such as grand fir and Douglas-fir. Fire-adapted seral species such as ponderosa pine and western larch, that historically dominated the stand, are now relegated to scattered remnants that are gradually fading from the landscape. The ID team's strategy to move from the Existing Condition toward the Desired Future Condition was to apply a variety of management practices that focus on reducing the over abundance of mid-successional communities and develop both early and late successional communities.

Enhance and maintain vegetative communities within the project area that promote overall forest health. Focus management activities (i.e. timber harvest) on stands which have high levels of mortality due to root disease and Pilgrim blister rust. Focus on stands that need management activities in order to perpetuate old growth ponderosa pine ecosystems. Create forage openings for big game animals and other wildlife.

The landscape is currently dominated by mid-successional stands; a scenario that, in all probability, never existed before. In addition, within-stand conditions are considered outside the range of historic conditions (DEIS pages 1-1 to 1-4 and pages 3-6 to 3-19). These stands currently have crowded understories dominated by shade-tolerant, root disease-prone species such as grand fir and Douglas-fir. Fire-adapted seral species such as ponderosa pine and western larch, that historically dominated the stand, are now relegated to scattered remnants that are gradually fading from the landscape. The ID team's strategy to move from the Existing Condition toward the Desired Future Condition was to apply a variety of management practices that focus on reducing the over abundance of mid-successional communities and develop both early and late successional communities. This would be accomplished by:

1) Regenerate stands that are highly infected by root disease, and reforest with species that are less susceptible to these root pathogens including western larch, ponderosa pine, and western white pine.

2) In stands being impacted by root disease where there are enough root disease-resistant trees present, utilize commercial thinning to remove many of the more susceptible species and leave a stand composed of more disease-resistant species.

3) Reducing understory vegetation and fuel characteristics through prescribed fire to enhance ponderosa pine communities, thus increasing the sustainability of these areas.

An important consideration is how the alternatives reduce the effects of and vulnerability to root disease, and insect and disease, reduce the potential for stand replacement fires and restore fire dependent ecosystems. Each alternative takes a different strategic approach in addressing these factors.

The timber sale proposal in Alternative 2 utilizes silvicultural practices, primarily seed tree, shelterwood and commercial thinning, that focus on removing Douglas-fir understory, regenerating areas of root rot, and reforesting these sites to root rot resistant species. Approximately 587 acres would be regenerated and 796 acres would have intermediate harvest (commercial thinning).

The timber sale proposal in Alternative 3 would regenerate 898 acres and 510 acres would have intermediate harvest (commercial thinning). Alternative 3 also takes an expanded approach to meet the purpose and need. Unit sizes tend to be larger in order to treat larger blocks of mountain pine beetle impacted lodgepole pine and root disease affected Douglas-fir and grand fir.

The timber sale proposal in Alternative 4 would regenerate 813 acres through shelterwood or seed tree, and 451 acres would have intermediate harvest (commercial thinning). It placed an emphasis on harvest of dead and dying lodgepole pine, but does so from existing roads.

Alternative 5 has a reduced level of activity compared to Alternatives 2, 3, and 4. The reductions are due to responses to concerns raised by the public. Alternative 5 does not build new road, does not require any Forest Plan amendments and does not create openings which exceed 40 acres in size. Consequently, these features limit the ability to treat areas identified by the purpose for the project and the need for action. It emphasizes the harvest of dead and dying lodgepole pine from existing roads. Approximately 261 acres would be regenerated through shelterwood, and seed tree, and 371 acres would have (commercial thinning).

b. <u>There is a need to increase age class diversity in lodgepole pine dominated forest communities in the project area.</u>

Lodgepole pine is a common tree species on the District and in the project area. However, extensive stands of almost pure lodgepole pine are relatively uncommon across the landscape. Most lodgepole pine in the project area are essentially the same age class resulting from unusually large fires which burned through the project area in 1889 and 1910. This created early successional conditions in most stands - essentially starting them over again. Many of these stands were lodgepole stands and they regenerated again to lodgepole pine. The majority of the lodgepole pine-dominated communities are single aged cohorts originating from these landscape scale disturbances, and are currently being infested by mountain pine beetle. Presently, high mortality rates are being observed in many of the lodgepole pine across the project area. This infestation accelerated after the proposed action was developed. The interdisciplinary team had identified the homogeneity and age of lodgepole stands as a risk factor for mountain pine beetle infestation, and this concern was borne out as mountain pine beetle numbers increased and began killing substantial numbers of trees across the planning area. The desired treatment strategy was to:

1) Design units specifically to capture some of the value of the infested lodgepole pine and return the sites to productive timber growth.

2) Increase the age class diversity, to provide a variety of stand ages across the landscape to build resilience and ensure long term retention of this important forest type on the District.

3) Reforest created openings to increase species diversity.

Following implementation of regeneration harvest, stand-level improvement in overall seral species sustainability is expected. By treating existing fuels and trending these specific stands towards greater species, age class and structural diversity, incremental improvement in resiliency is expected.

Alternative 3 treats the most area impacted by mountain pine beetle, with Alternative 4 treating a lesser amount, Alternative 2 treats only about one-third of the areas treated by Alternative 3. Alternative 5 treats the fewest acres.

c. <u>There is a need to provide local employment related to forest management and restoration activities and to supply forest products to contribute to the support of that segment of the local and regional economy dependent on timber products.</u>

In reviewing the alternatives I find that all action alternatives provide a supply of timber to support the local and regional economies, although at different levels. Alternative 3 would supply the greatest amount of timber product, while Alternative 5 supplies the least. However, the supply of timber is a minor consideration. A more important consideration is how the alternatives reduce the effects of and vulnerability to insects and disease, reduce the potential for stand replacement fires and restore fire dependent ecosystems. Each alternative takes a different strategic approach in addressing these factors.

d. <u>There is a need to improve forage production and quality through the use of such treatments as commercial timber harvest, slashing, and prescribed fire.</u>

Big game forage in the Pilgrim Creek Timber Sale project area is primarily shrubs, along with grasses and forbs. Natural disturbance (primarily wildfire) has been relatively uncommon since the 1910 fire and forage quality and availability has declined as forest canopies close. Cover to forage ratios are currently skewed towards cover and there is a need to improve both the quality and quantity of available big game forage. Cover to forage ratios on big game winter range are currently 73/27%, and on summer range it is 79/21%. To move from the existing condition towards the desired condition the IDT designed treatments to:

1) Shift cover to forage ratios toward 60/40 on winter and summer range as recommended by the Kootenai Forest Plan.

2) Create early successional habitats that provide a variety of abundant forage plants.

3) Utilize prescribed burning to expand the incidence of big huckleberry, red stem ceanothus, rocky mountain maple, serviceberry, and willow in the appropriate habitat. For areas that contain Rocky Mountain maple and serviceberry, the objective would be to rejuvenate decadent plants and enhance forage palatability.

Alternatives 2, and 4 include timber harvest in MA-11 and MA-12 to improve forage quality and quantity. Alternatives 2, 4 include a project-specific Forest Plan amendment for MA-10 to suspend the requirement that all cavity habitat be retained and a project-specific Forest Plan amendment to amend MA 12 (big game summer ranger) standards to allow for an increased open road density during activity periods associated with the Pilgrim Creek Timber Sale project. Alternative 3 would not require an amendment for MA-10, but would require one for MA-12. Alternative 5 would not require any Forest Plan Amendments.

Cover/forage ratios on winter range would shift one percent toward the Forest Plan Standard because of timber harvest in MA's 10 and 11. The largest change would occur under alternative 4, which proposes to harvest a total of 97 acres. Alternatives 3 and 5 do not include any timber harvest in MA-10.

On summer range, cover/forage ratio would shift toward more forage under each action alternative. The largest change would occur under alternative 3. None of the alternatives achieves the guideline adopted in Summerfield (1991), leaving summer range cover/forage ratios skewed towards cover in the project area (DEIS page 3-71).

I feel that Alternative 3 best achieves the Management Area Goals and the Purpose and Need for Action because it:

- Will create sustainable forest conditions by improving overall stand health. Growing space, individual tree vigor, and the ability to withstand insect and disease will be improved in treated stands. Better opportunities for ponderosa pine and western larch regeneration will result from the creation of more open stand conditions.

- Uses timber harvest for ecological restoration while providing benefit to local communities that still have a strong economic dependency.

- Treats the most acres experiencing mortality from mountain pine beetles and root disease.

- Reduces ladder fuels and excess down woody debris on the most acres of short return interval fire-dependent ecosystems.

- Will reduce potential fire intensities and improve the opportunity for fire suppression, and lessen the potential resource impacts to National Forest System and private land.

- Uses prescribed fire to simulate natural ecological processes, prevent excessive natural and activity fuel buildups, and create habitat diversity for wildlife.

- Comes the closest to achieving objectives for big game cover/forage ratios in MA 12.

- Enhances big game and grizzly bear forage through reduced stand densities, created openings, and prescribed burning.

- Would further improve the watershed as a whole by implementing BMPs on haul routes. Road drainage BMPs would focus on preventing water and sediment delivery from the road network, especially ditches, into streams. The primary methods for accomplishing this would be improvements to road surface, ditch relief culverts, and stream culvert replacement

- Habitat enhancement for fisheries through reduction in sediment sources.

- Maintains a balance of open and closed roads to continue present levels of motorized use, big game habitat security and reduced maintenance costs.

B. THE RELATIONSHIP TO ENVIRONMENTAL ISSUES AND PUBLIC COMMENTS

Public Involvement: On October 6, 2009, a public meeting was held to provide information on the proposed project in the Pilgrim Creek area regarding areas of interest where timber harvest and/or prescribed burning may occur. Eleven individuals attended. Attendees expressed concerns about the potential for wildfire, insect and disease infestations, road access, and asked questions about the use of prescribed fire for fuel reduction and wildlife habitat enhancement.

The proposed action was listed on the Kootenai National Forest's quarterly schedule of proposed actions (SOPA) beginning with the January 2010 issue. A detailed scoping letter explaining the proposed action was mailed out February 24, 2010. Recipients included other federal agencies, State and county agencies, local Tribes, and approximately 70 local land owners, watershed council members, and other interested parties. At completion of the scoping period, input on the proposed action was received from twelve individuals, groups, and agencies. An additional opportunity to provide input occurred in May, 2011 regarding the creation of openings greater than 40 acres in size and the potential need to amend the Forest Plan to exceed open road density standards on big game summer range. At completion of the scoping period, input on the proposed action was received from eleven individuals, groups, and agencies.

The Notice of Intent to Prepare an EIS for the Pilgrim Creek Timber Sale Project was published in the *Federal Register* on March 23, 2012. As the responsible official for this project, I made the decision to move from an Environmental Assessment to an Environmental Impact Statement based on the expanded scope of the project in response to increasing mountain pine beetle activity in the lodgepole pine; changed conditions, input received during the scoping period; and emerging potential issues. A letter was mailed to interested individuals, agencies and groups explaining the rationale for the change.

The DEIS was released for public review with a 45 day comment period on February 8, 2013. See the FEIS and the project file for additional information. Comments were received from one individuals, three organizations, one county commission and two agencies.

The comments received on the Pilgrim Creek Timber Sale DEIS did not disclose any new issues or a need for new, significant analysis. Therefore, I have determined that it is sufficient and appropriate to re-issue the Draft EIS with Response to Comments, Summary of Public Involvement, Biological Assessment, Letter of Concurrance from the U.S. Fish and Wildlife Service, and Errata Sheets as the final document for the Pilgrim Creek Project [40 CFR 1503.4(c)].

Issues: I selected Alternative 3 because it best meets the purpose and need while including design elements which respond to the issues generated from agency and public comments. All action alternatives analyzed within the project area varied in response to the issues. Public comments were received during the scoping process, during preparation of the DEIS, and in response to the DEIS. Scoping comments were used to identify the issues that are detailed in Chapter 2 of the DEIS. Detailed responses to the comments on the DEIS have been prepared and are included as Chapter 4 of the FEIS.

The following summary describes responses to the issues described in the DEIS and comments received on the DEIS. I considered resolution of some issues more important than others in making my decision based upon analysis and comments received.

Issue 1: **Construction of New Roads** - *The construction of new permanent and temporary roads may negatively impact forest resources.*

The original proposed action (Alternative 2) included 2.4 miles of new permanent road to facilitate the harvest of timber and associated activities. During scoping the public expressed concern that the new permanent road construction would impact forest resources, add to the backlog of maintenance needs and increase future expenditures for maintenance. These concerns led to consideration of Alternative 4, which did not include any road construction, either permanent or temporary. This alternative emphasized treatment of lodgepole pine being affected by mountain pine beetle in many of the same units as Alternative 3 that could be accessed from existing roads.

All miles of new road construction are needed to access proposed harvest units, which I feel is important in achieving the purpose and need now and to provide future options for treatment. Under Alternative 2, the 2.4 miles of new road construction accesses 352 acres of harvest and the 1.6 miles of temporary road construction accesses 138 acres of harvest. Under Alternative 3, the 4.7 miles of new road construction accesses 551 acres of harvest and the 1.6 miles of temporary road construction accesses 137 acres of harvest. Road access also allows for more cost effective site preparation for tree planting, reforestation surveys, prescribed fire and other post-harvest activities. Following all post treatment activities temporary roads would be returned to natural conditions and eventually provide forest cover, although they would likely go through a prolonged period of grass, forbs and/or shrub dominance. Access to new construction and closed roads proposed for use would be controlled post treatment by gates or other closure devices. These closure devices allow for motorized access sometime in the future, which may help fire suppression and stand-tending operations such as pre-commercial thinning (DEIS page 3-39). Closed roads would require minimal maintenance due to the infrequency of use.

The vast percentage of the new road segments planned under Alternative 3 in the Pilgrim Creek drainage exist high in the basin and occur in dry draws with no connectivity to any live surface water channels. These new road segments would not negatively affect watershed integrity with proper application of best management practices on roads (DEIS page 3-190).

Roads currently open to the public provide important access for public use of the area. Some of these roads are closed during fall hunting season to provide security for elk, but the roads are open during the summer months. Concern has also been expressed by the public that any additional road closures will decrease access within the Pilgrim Creek drainage, specifically if roads that have been traditionally open were closed.

I have reviewed all alternatives as they relate to this issue. All action alternatives were designed to meet current levels of open road density while avoiding the need to change the existing access management strategies. Increases in open road density for Alternatives 2, 3, and 4 are only short-term (for the duration of activities associated with Pilgrim Creek Timber Sale Project).

From input received during the scoping and DEIS comment periods, I recognized the concerns for the potential resource impacts from additional new roads, and on the other hand, the loss of existing access to National Forest System lands.

The selected Alternative 3 (as well as the other action alternatives) maintain the current access. The new permanent roads will be closed to the public thereby maintaining current levels of security for wildlife, and reducing potential for interactions with grizzly bears.

Issue 2: Open Road Density (ORD) - *The proposed action could potentially reduce security for wildlife species by constructing new roads in wildlife security areas and the reopening of existing roads, increasing open road density.*

Wildlife security was identified as an issue early in the process by both the IDT and the public. The concerns raised centered on big game species, and grizzly bears. This is an important issue for those who hunt, enjoy viewing wild animals and anyone interested in maintaining native species. These concerns have been heard and were used to help design alternatives which provide a balance of forage and security.

This issue is essentially one directly related to human use, specifically big game hunting. The Forest Service does not have the jurisdiction to manage big game populations; the scope of our charge is limited to management of habitat. Security areas are places that animals seek out in response to hunting pressure that allow them to survive the hunting season and are a function of remoteness, cover, and food. These types of areas are particularly important for maintaining healthy populations with a component of older males. In addition to security areas, big game vulnerability during hunting season is influenced by the condition of areas generally closer to roads. The opportunity to maintain cover in many units and close roads accessing others was recognized and capitalized on. This will reduce big game vulnerability in areas not managed specifically for security.

The importance of wildlife security was recognized in the design of all action alternatives and they all strive to achieve an appropriate balance of food and cover. Although there are minor differences between alternatives, I find that these differences are not enough to make one action alternative more attractive than another. All of the action alternatives return security levels to their existing conditions following the completion of harvest-related activities (DEIS pg 3-72). I did consider Alternative 1 as it relates to this issue and have concluded that, while wildlife security would be maintained, food sources would continue to decline.

As part of this Record of Decision I am approving a project-specific Forest Plan Amendment to change the allowable open road density within MA-12 from 0.75 miles per square mile to 2.6 miles per square mile on big game summer range (MA 12) outside of the Stevens Ridge Amendment Area - roughly the north half of the Pilgrim Creek project Area during activity periods to facilitate timber harvest operations under Alternative 3. This amendment is specific to the Pilgrim Creek Project area and will remain in effect through the life of the project. In order to implement Alternative 3, exceeding the ORD is necessary to concentrate management activities temporally and spatially to minimize the effects of displacement on big game.

Alternative 5 did not increase open road density in the planning subunit. This alternative was considered in detail and analyzed by the Interdisciplinary Team.

Roads that are currently restricted to motor vehicle access would remain restricted to the public during and following harvest. No change from the existing condition would occur during implementation of the project because current road restrictions would remain in place (DEIS page 2-46).

This MA 12 ORD amendment permits activities to take place that improve the cover/forage ratio for elk through increasing the amount of forage. This existing cover/forage ratio for the Pilgrim Creek area is 79/21 in summer range and 73/27 in winter range. The Preferred Alternative would improve the cover/forage ratio to 75/25 for summer range and 72/28 for winter range.

For a population of big game animals to survive, both food and cover (thermal and security) must be available. An overabundance of cover generally results in less and lower quality forage, which can result in reduced populations. Our objective is to provide an adequate amount of each to allow the Montana Department of Fish, Wildlife and Parks the ability to manage big game populations at a level they have determined to be adequate. All action alternatives provide some improvement in forage quantity and quality. Alternative 3 achieves this objective the best since it comes closer to meeting both the Forest Plan standards for cover/forage ratios in MA 10 and MA 11, and providing the recommended project area-wide cover/forage ratios (DEIS page 3-70).

Habitat for threatened and endangered species will be maintained. The project area lies outside of identified recovery zones for grizzly bears, but occasional grizzlies may move through the area. There is no evidence of grizzlies denning in the project area. The project area includes portions of two lynx analysis units (LAUs), but the current and historic extent of lynx occurrence is unknown. The proposed activities meet the standards and guidelines in the Lynx Conservation Assessment and Strategy (2000).

Approximately 5.2 miles of closed road would be reopened and used for this project. These roads include NFSRs 2718, 2719, 2744C, 2744D, 2746, and 2214H. During project activities, these roads will be only open to administrative and contractor use. At no point would the roads be open to motorized access by the public, so a pattern of public use will not be established. Upon completion of project related activities, the roads would be closed to all motorized use; an earthen berm or gate (depending on existing road access designations) would be installed to discourage unauthorized use. As with all road closures, this specific closure would be monitored for illegal motorized use and appropriate law enforcement action taken. All other existing roads to be used for this project are currently open either yearlong or seasonally.

Based on their review of the biological assessment, the U.S. Fish and Wildlife Service (USFWS) concurred with the Forest Service that the Pilgrim Creek Timber Sale Project was not likely to adversely affect the threatened grizzly bear and the project would be in compliance with the standards provided in the Grizzly Bear Access Amendment. The USFWS confirmed that the baseline access condition and the effects on grizzly bears were considered in the 2011 programmatic biological opinion and the project is in compliance with that biological opinion and incidental take statement (FEIS, Letter of Concurrence, USFWS 2013).

Issue 3: Expanding Infestation of Mountain Pine Beetles - *the proposed action does not include enough treatment to address the increasing mortality in the lodgepole pine from mountain pine beetles.*

Mountain pine beetles have become much more active in the project area since the proposed action was originally developed. This local outbreak coincides with a larger, better known outbreak elsewhere in Montana. Given the existence in the project area of lodgepole pine stands, which are the primary target of mountain pine beetles, and observed increases in beetle attacks and related mortality, there is some concern that the proposed action does not include enough treatment to address the current increasing mortality in the lodgepole pine from mountain pine beetles. In response to these comments, the IDT developed additional alternatives that more specifically addresses the current, ongoing outbreak of mountain pine beetles in the project area to capture economic value and return the affected areas to productive timber growth.

Issue 4: Openings over 40 Acres in Size – *Large openings may affect habitat for wildlife species.*

The harvest of dying and high risk lodgepole pine and root disease impacted Douglas-fir and grand fir under Alternatives 2, 3, and 4 would result in openings which exeed 40 acres in size.

NFMA establishes opening size limits according to geographic areas, forest types, or other suitable classifications. Regulations establish the size limit for our geographic area at 40 acres, with exceptions for larger openings when they will produce a more desirable combination of net public benefits.
Larger openings were designed to produce the following benefits (DEIS pages 3-40, 3-41):

- Reduce the potential for increased blowdown from harvest of the timber. Most of the proposed units are exposed to prevailing winds where smaller cutting blocks would subject the remaining trees to windthrow. Evidence in the Smeads Creek drainage and on Tuscor Hilll has shown the effects of windthrow in root disease and mountain pine beetle areas.

- The best management strategy for focuses on retention or establishment of root disease tolerant species like pines and western larch. Increase the realization of economic value from salvage of dead and dying Douglas-fir and lodgepole pine. A one entry harvest would maximize the economic return of salvaged trees.

- The best management strategy for root disease sites focuses on retention or establishment of root disease tolerant species like pines and western larch.

- Management activities would be accomplished in one entry rather than two.

- Larger regeneration patch sizes are more characteristic of the historic range of variablilty.

Alternatives 2, 3 and 4 include proposed treatment units that would be over 40 acres in size, either based on the actual size of the proposed unit, or in combination with adjacent, existing openings. Some of these proposed openings would be exempted under the NFMA's exception for catastrophic events, such as fire, or insect and disease attacks. In the case of the Pilgrim Creek Timber Sale project, specifically mountain pine beetle related mortality in lodge pole pine stands. Other openings exceeding 40 acres, created to respond to root disease impacted areas require Regional Forester review and approval. A larger regeneration patch size would also be more characteristic of the historic range of variability and the end result would be less edge and patchwork units created while maintaining connectivity between forested areas

Alternatives 3 and 4 propose more regeneration harvest, followed by planting with root disease resistant species such as western larch, ponderosa pine, and western white pine.

Alternative 5 does not propose any openings that would exceed 40 acres in size, but this severely limits the available options in mountain pine beetle and root disease impacted areas, and accordingly the overall acres treated are reduced.

Issue 5: Inventoried Roadless Areas and Unroaded Areas - *Implementation of the proposed action may impact Inventoried Roadless Areas (IRAs) or affect the consideration of unroaded areas for future expansion of the existing IRAs.*

Inventoried roadless areas are to be managed to provide roadless recreation opportunities and wildlife habitat. They are also areas which may be considered for wilderness designation in the future. Public comments were focused on the broad issue of the validation of, or expansion of inventoried roadless area boundaries and on the specific activities which were proposed to occur within, or adjacent to inventoried roadless areas. Another related issue is how proposed road construction and timber harvest would affect 'unroaded areas'. Unroaded areas are defined in the FEIS for the Roadless Area Conservation Final Rule as "any area, without the presence of a classified road, of a size and configuration sufficient to protect the inherent characteristics associated with its roadless condition. Unroaded areas do not overlap with inventoried roadless areas."

The Lone Cliff IRA #674 was addressed in Appendix C of the 1987 Forest Plan EIS and the area was identified at 6,600 acres. The area was validated in 1998 at 5,114 acres with the area generally being bounded by roads and harvest units on all sides. The Huckleberry Mountain IRA #699 was not identified in Appendix C of the 1987 Forest Plan EIS because it was mapped at less than 5,000 acres in size. In 1999, it was reviewed and validated. This roadless area is bounded by roads and harvest units, and contains two distinct pieces joined by a narrow neck. The validated acres for the combined area are 8,960.

I recognize that the Inventoried Roadless Areas (IRAs) are important to the public, especially in terms of their high ecological value. I have reviewed all alternatives as they relate to this issue, including Alternative 1, the No Action Alternative. All action alternatives were designed to avoid significant impacts to IRAs. Specifically, none of the alternatives propose road building or logging within IRAs. Only prescribed burning of natural fuels is planned in IRAs under any of the action alternatives. This is consistent with the Forest Plan in regards to activities with IRAs (DEIS page 3-288).

The IDT considered all unroaded areas and made a determination as to the effects of the proposed activities on the area's inherent characteristics associated with its roadless condition (DEIS pages 3-283 through 3-288). The Travel Analysis for the Pilgrim Creek Timber Sale project area confirmed the present and future need for the existing and planned National Forest System roads in the project area. I considered the option of dropping road construction and harvest treatment inside the unroaded areas in proximity to either the Huckleberry or Lone Cliff Smeads IRAs, but decided that vegetation management, including prescribed burning was needed, and that these actions would not foreclose future options for the area. While road construction would reduce the existing level of natural and undeveloped character on a portion of the unroaded area, it would not notably reduce the existing level of manageability or special features of this area, which are currently low (DEIS page 3-287).

Although harvest would have some short-term impacts to the natural and undeveloped attributes of the area (increased evidence of stumps and saw cuts and trails with crushed ground vegetation associated from the harvest and fuels treatments), these are not permanent effects and there would be no change from the existing condition regarding attributes related to the opportunity for solitude or primitive and unconfined recreation. Over time, the appearance would improve as vegetation and other natural processes reduce the evidence of harvest related ground disturbance. In addition, I have carefully evaluated the actions in unroaded areas in light of ongoing development of long term roadless policy and the 2001 Roadless Conservation rule. The planned timber harvest in unroaded areas would not likely change how the area would be considered, or not considered, for wilderness designation in the future; as the existing capability of these areas to be suitable is low (DEIS pages 3-285-288).

Issue 6: Old Growth - *Implementation of the project may have short term effects on old growth characteristics.*

The Selected Alternative does not include any road construction or timber harvest within designated old growth or replacement old growth, or in known or suspected old growth timber stands. Prescribed burning of natural fuels in 530 acres of designated old growth is planned. The compartments within the Pilgrim Planning Sub-unit were field verified with approximately 5,084 acres being inventoried. Of those acres initially thought to be old growth, 1,951 acres were determined to not be old growth. This leaves approximately 3,133 acres of inventoried old growth (OG) or replacement old growth (ROG) in the Pilgrim Creek sub-unit. Of these acres, approximately 2,992 acres are located below $\leq$5,500 feet in elevation (DEIS page 3-48).

I heard from some of our public that some units proposed for logging contained mature, large trees, making them good candidates for future old growth designation. The selected alternative effectively deals with the underlying issue of the sustainability of this important ecological component. By reducing stand density, retaining old growth stand components and younger desirable trees followed by the use of prescribed fire, stands will be moved to a condition more representative of historic conditions. Timber harvest will release the ponderosa pine and western larch and help to maintain their vigor and long term presence on the site. The use of prescribed fire will return fire-related processes to these ecosystems which have developed under frequent underburns.

Individuals aligned towards the preservation view are more inclined to support Alternative 1 since it does not propose to harvest adjacent to old growth stands or reintroduce fire through prescribed burning of natural fuels. Those who are concerned that old growth, in some forest types, is at risk due to wildfire and/or insect or disease outbreaks would support Alternatives 2, 3, 4, and 5.

In developing alternatives to address this issue, the Interdisciplinary Team proposed two management options: no treatment or prescribed burning in old growth. There is no timber harvest or mechanical treatement proposed in designated old growth stands. I find that the degree of old growth management included in Alternatives 2, 3, 4, and 5 is appropriate for conditions at this time, and that the environmental analysis of these options has allowed me to assess this issue and make a reasoned decision.

I considered whether or not there was a need to burn natural fuels in old growth at this time. Presently, these older forest communities have unusual attributes as compared to historic conditions. This includes such attributes as very dense stands, an underrepresentation of large, older dominant trees, a species mix skewed towards shade tolerant understory trees, a preponderance of trees vulnerable to root disease, and generally low vigor. These attributes are symptoms related to the suppression of fire, and create a situation where it is unlikely that old growth characteristics can be maintained, or restored where they have diminished over time. My conclusion is that, for old growth stands that were historically fire-maintained, (ponderosa pine, western larch and Douglas-fir), the sustainability, at this time, of this important forest type is questionable and, because of this, there is an indicated need for management.

Prescribed burning of natural fuels in designated old growth was not proposed in Alternative 1 because of the need to analyze the effects of taking no action, and to address public concern. I have selected Alternative 3 because it will maintain or enhance designated old growth. I have determined that this action will help maintain adequate old growth for dependant species (DEIS page 3-56). I feel that there is a compelling need to treat these old growth stands at this time because these stands have missed 2 to 6 fires since 1910. This extended fire-free interval has allowed fuels to build up to a point where should a wildfire reach one of the old growth stands, it would quickly become a stand-replacement fire. The result would be the loss of all old growth characteristics, a further reduction of late successional forest in the drainage. Until the stands burn, Douglas-fir will continue to out compete ponderosa pine for space and resources until they replace them.

Issue 7: Watershed/Fish Habitat - *Past management activities and those associated with the implementation of the Proposed Action may result in increased peak flows and sediment production that might impact channel condition and beneficial uses.*

I am aware that past timber harvest, road building and the fires of 1889 and 1910 have had an effect on the water quality and fish habitat within the Pilgrim Creek project Area. The assessment of the Pilgrim and Stevens Creek drainages leads me to believe that the existing condition is primarily due to the effects of the aforementioned fires, the subsequent flood of 1916, and removal of riparian vegetation and conversion to pasture land on private property (See Water Resources documentation in the project file).

Public awareness and understanding of forest management activities' effects on fish habitat and water quality has increased over the past few years. This heightened awareness has brought about changes in policy and procedure to protect and improve the existing condition of aquatic resources on public lands administered by the USDA Forest Service. These changes include but are not limited to the Inland Native Fish Strategy (INFS) that amended the Forest Plan for the protection of aquatic resources; the June 10, 1998 listing of bull trout as a threatened species under the auspices of the Endangered Species Act of 1973; the Clean Water Act of 1972, and HB 546 which requires the development of total maximum daily loads (TMDL) for water quality limited segments (WQLS). Pilgrim Creek is listed as a WQLS on Montana's 303(d) list due to physical substrate habitat alterations that threaten the cold water fishery. The probable sources of impairment listed by the State include channelization, stream bank modification/destabilization, and grazing in riparian or shoreline zones (DEIS page 3-161). Another consideration in this decision was to provide for the long-term persistence of the westslope cutthroat trout population in the Pilgrim Creek Project Area and maintain or enhance trout habitat.

The interdisciplinary team identified the need to maintain stream channel conditions and beneficial uses, very early in the development of this project. Several public comments were received during the planning and analysis process which shared my concern that past, current and proposed activities, on Forest Service and private lands, might have adverse effects on fish habitat within the analysis area. As a result of these comments, and the need to comply with both State and Federal laws, the IDT developed all action alternatives to meet water quality standards. In designing the timber sale, Pilgrim Creek and all of its tributaries were assessed to determine the harvest level that would provide a viable project and protect all beneficial uses based on R1-WATSED modeling, field surveys, and the professional interpretation of that information. The target acreages (also known as equivalent clearcut acres or ECAs) were then used as initial design limits for size and location of timber harvest units and roads for all action alternatives. The drainage improvements proposed on the existing system roads will provide additional benefits to the watershed by reducing sedimentation. I have determined that the design of the timber sale in Alternative 3, and the improvement of existing roads will protect water quality and beneficial uses, including fish habitat, within the Project Area (DEIS pages 3-199, 3-200, 3-230).

Another fundamental component of this project includes best management practices (BMPs) to be implemented during all phases of all projects that have the potential to disturb soils or affect water quality. In order to assure that BMPs are properly implemented, I have included a program of BMP Implementation and Effectiveness Monitoring (DEIS, Appendix D), as part of the Selected Action, which includes a feedback loop to facilitate modification of BMPs that are not providing the desired level of protection. This BMP process is an important component of the State of Montana TMDL development process, for WQLS that are impacted by non-point source activities.

Implementation of Alternatives 2, 3, 4, and 5 in conjunction with the current activities in the project area, which include past, ongoing, and reasonably foreseeable actions would not measurably affect aquatic habitat. Fish habitat would be maintained and would not decrease viability of bull trout, westslope cutthroat trout, or western pearlshell populations within the project area (DEIS page 3-229).

In comments on the DEIS, the US Environmental Protection Agency made recommendations regarding a program of water quality/aquatics monitoring. The proposed monitoring program developed for this project is provided in Appendix J of the DEIS. These are important efforts from which we hope to gain additional information to guide our management in the project area, across the District, and the Kootenai National Forest.

I feel that Alternative 3 best responds to environmental issues and public comments because:

- It offers the best opportunity to not only treat areas affected by mountain pine beetles and root disease, but also gives us the opportunity to help blend existing harvest openings into an otherwise uniformly forested landscape.
- It will maintain or enhance conditions in designated old growth by reintroducing fire to the ecosystem.
- It promotes recruitment of persistent, large diameter snags, important to cavity dependent species.
- Increases in open road density will be short-lived, and upon completion of the project, total road density and security levels will return to pre-project levels.
- Prescribed burning in IRAs is compatible with the goals for these areas.
- It improves watershed conditions through application of BMPs on forest roads.
- It achieves the treatment objectives while maintaining the current level of public access.

Why I did not select the No Action Alternative:

Let me compare the selected alternative with the no action alternative, further highlighting my rationale, beginning with an evaluation of the implications of taking no actions to address the purpose and need at this time:

Alternative 1, the No Action Alternative, would not propose any management response to the stated purpose and need statements for the project area. I did not select this Alternative because:

- It does not pro-actively address the need to trend the area toward a species mix that is more resilient and less susceptible to endemic change agents in the area such as root disease and the mountain pine beetle, which are currently impacting the area.
- The decline and potential loss of desirable early seral species would continue unabated.
- There is an increasing risk of wildfire threat to National Forest resource values in response to fuel conditions and Alternative 1 does nothing to reduce this risk. In contrast, Alternative 3 moves the area toward a patchwork of age classes, including some openings, and a more resilient mix of tree species that will alter fire behavior and reduce crown fire risks to adjacent private lands, water quality, soil productivity, wildlife habitat and aesthetic values.
- Treatments to allow for the return of fire to maintain old growth habitat attributes would not occur, allowing a continued accumulation of excess woody fuels, crowded understories dominated by shade-tolerant, root disease susceptible, and fire damage susceptible species of conifer species.
- Big game and grizzly bear forage conditions would continue to decline.
- Sediment reduction activities and improvements to watershed conditions would not be implemented.
- There would be no wood products produced, and no contract employment opportunities from work on NFS lands to contribute to the local and regional economy.
- The selected alternative can be implemented to address the stated purpose and need with negligible to no adverse effects to other resource values.

It is clear to me that the No Action Alternative would postpone taking any action to address the stated purpose and need for the project. In contrast, the selected alternative (Alternative 3) proposes management actions in response to the purpose and need (DEIS pages 1-4 through 1-6). The actions are consistent with management direction for the area, including that contained in the Forest Plan.

C. COMPATIBILITY WITH OTHER AGENCY AND AMERICAN INDIAN TRIBAL GOALS

I received comments on the DEIS from other Federal agencies. Comments received from reviewing agencies are summarized in the Response to Comments. The letters received are located in the project file.

Tribal Goals - Tribal governments from the Confederated Salish and Kootenai Tribes, and the Kootenai Tribe of Idaho were contacted. Consultation with the Confederated Salish and Kootenai Tribes was conducted utilizing the tribal liaison who works with the Forest. No formal concerns were raised.

National Fire Plan Goals - In August of 2001, the federal wildland fire management agencies prepared a 10-Year Comprehensive Strategy. This project is consistent with two of the primary goals of this strategy: reduction of hazardous fuels, and restoration of fire adapted ecosystems. The Pilgrim Creek Timber Sale project reduces hazardous fuels and begins the restoration process for fire adapted ecosystems through timber harvest, associated fuels treatments, and prescribed fire, as described under each alternative.

US Fish and Wildlife Service (USFWS) - The Kootenai National Forest and Pilgrim Creek Timber Sale project IDT worked closely with the USFWS throughout the process. The USFWS was informed of the scope of the proposed activities on a regular basis. A Biological Assessment was prepared on February 20, 2013 for Alternative 3 as presented in the DEIS. The USFWS issued written concurrence with the findings of the Biological Assessment pertaining to effects of Alternative 3 for the grizzly bear, and Canada lynx on March 28, 2013 (copies of the Biological Assessment and supporting documents are located in the Project File).

Montana Department of Environmental Quality (MT DEQ) – MT DEQ was contacted during the DEIS scoping and comment period. The Selected Action is consistent with the Forest Plan Riparian Area guidelines, as amended by the Montana Streamside Management Zone Act HB-731, and the Inland Native Fish Strategy (USDA, 1995) standards and guidelines. The Selected Action complies with Montana State Water Quality Regulations and the Clean Water Act. It would protect beneficial uses within the Pilgrim Creek watersheds. No deterioration of the Water Quality Limited Segment (WQLS) would occur (DEIS pg 3-180 through 3-199).

Environmental Protection Agency (EPA) – EPA reviewed the DEIS and submitted comments. Many of the EPA's concerns were addressed in the response to comments or in supporting documentation contained in the project file. After careful consideration of the EPA's concerns, I have determined that the Selected Action is responsive to their concerns and no additional analysis or change was needed.

VI. SUMMARY OF DECISION RATIONALE

The No Action **Alternative 1** does not enhance or maintain vegetative communities that promote overall forest health using strategies that reduce the effects of, and vulnerability to insects and root diseases; nor does it enhance big game and grizzly bear habitat, specifically forage; nor contribute to a reduction in sediment sources to reduce impacts to water resources and fisheries; nor address the over abundance of mid-successional forests. For these reasons I did not select Alternative 1.

Mountain pine beetles have become much more active in the project area since **Alternative 2**, the proposed action was originally developed. Given the existence in the project area of lodgepole pine stands, which are the primary target of mountain pine beetles, and observed increases in beetle attacks and related mortality, there was concern that the proposed action did not include enough treatment to address the current increasing mortality in the lodgepole pine from mountain pine beetles. Since Alternatives 3 and 4 were more responsive to the expanding insect and disease conditions, I did not select Alternative 2.

Alternative 3 has the best mix of harvest treatments that address concerns about the expanding infestation of mountain pine beetles, while regenerating areas affected by root disease. Alternative 3 would treat more ladder fuels and would bring cover/forage ratios closer to Forest Plan standards. In addition, we are able to meet the needs for other resources such as wildlife, soils, watershed, and scenic quality as well as accommodating the desire expressed by the local publics for more forest management. Those most likely to be directly affected by the project, prefer this alternative. In addition, it restores vegetative communities on the greatest amount of area, it treats the most acres in areas impacted by mountain pine beetles and root disease, it treats fuels on the most acres, and it creates the most forage. The road construction will provide needed access to our landbase now and and expand future opportunities for stand treatments. I find this to be a more appropriate approach at this time, therefore I am selecting this alternative for implementation.

Alternative 4 has much the same mix of harvest treatments as Alternative 3. It addresses public concerns about new road construction and effects to unroaded areas, while regenerating areas affected by mountain pine beetles and root disease. Alternative 4 prescribes more regeneration harvest insect and disease impacted areas than Alternative 2, would treat more ladder fuels; and would bring cover/forage ratios closer to Forest Plan standards. While Alternative 4 has many of the advantages of Alternative 3, the decision to postpone expansion of the transportation system at this time not only prevents harvest treatment of the suitable landbase at this time, but may limit options in the future due to changes in economic conditions; as a result, I did not select Alternative 4.

Alternative 5 restores vegetative communities on the least amount of area, it treats the fewest acres in lodgepole pine dominated communities, it treats the fewest acres in areas impacted by root disease, it treats fuels on the fewest acres, and it has the least employment generated through the harvest of timber. For this reason, I did not select Alternative 5.

I consider that Alternatives 3 and 4 are the environmentally preferred alternatives since they both meet vegetation restoration objectives. They offer the best balance between meeting the Purpose and Need for action and present the fewest long-term adverse environmental effects. They contain watershed improvement activities, including the commitment to road decommissioning to ensure long-term improvement, as included in Alternatives 2 and 5. Alternative 1 (No Action) would have the least impacts to soils, water quality, aquatic habitats, and wildlife resources, in the short-term, as no ground-disturbing activities such as timber harvest, prescribed burning, or road construction are proposed. However, this alternative does the least for long-term protection of ecosystem components at risk.

VII. REGIONAL FORESTER APPROVAL ASSOCIATED WITH THIS DECISION

The Selected Action includes regeneration harvest on suitable lands that result in three contiguous openings greater than 40 acres (76, 187 and 87 acres), described in the DEIS on pages 2-5 and 2-17 through 2-20. In accordance with Regional direction, the Regional Forester has approved these harvest units. More information regarding these harvest units and their approval by the Regional Forester is located in the project file.

VIII. FINDINGS REQUIRED BY LAW, REGULATION, AND AGENCY POLICY

Numerous laws, regulations, and agency directives require that my decision be consistent with their provisions. I have determined that my decision is consistent with all laws, regulations, and agency policy. The following summarizes findings required by major environmental laws.

A. National Forest Management Act (16 USC 1604)

On April 9, 2012 the Department of Agriculture issued a final planning rule for National Forest System land management planning (2012 Rule) 77 FR 68 [21162-21276]). Except for the plan consistency requirements in 36 CFR §219.15, none of the requirements of the 2012 Rule apply to projects or activities" (36 CFR §219.2(c)).

1. Consistency With Forest Plan (16 USC 1604(i))

The Kootenai Forest Land and Resource Management Plan (Forest Plan), as amended by the Inland Native Fish Strategy (USDA, 1995), establishes management direction for the Kootenai Forest. This management direction is achieved through the establishment of Forest goals and objectives, standards and guidelines, and Management Area goals and accompanying standards and guidelines. Project implementation consistent with this direction is the process by which we move toward the desired condition described by the Forest Plan. Forest Plan direction provides the sideboards for project planning. In addition, the National Forest Management Act requires that all resource plans are to be consistent with the Forest Plan (16 USC 1604 (i)). The DEIS displays the Forest Plan and Management Area goals and objectives and the standards and guidelines applicable to the Pilgrim Creek Project Area (DEIS, Chapter 1). The alternative development process is detailed in the DEIS, Chapter 2, while the management goals of the alternatives and the environmental consequences of the alternatives in relation to the Forest Plan standards and guidelines are described in the DEIS, Chapter 3. The Forest Plan states "If it is determined during project design that the best way to meet the goals of the Forest Plan conflicts with a Forest Plan standard, the Forest Supervisor may approve an exception to that standard for that project." With this decision I have approved one project specific amendment (Appendix 6). With the inclusion of this amendment, this project is consistent with Forest Plan management direction.

> I have approved an amendment to the Forest Plan to modify the open road density requirements in MA 12 from 0.75 miles per square mile, to 2.6 miles per square mile outside of the Stevens Ridge Amendment Area during activity periods for the Pilgrim Creek Timber Sale project. I base this decision on the fact that the MA 12 lands within the project area, will have an post-project open road density of 1.9 miles per square mile, which is the existing condition. This change will allow implementation of vegetation management treatments, which will in turn provide increased forage production for big game.
>
> I have determined that this is a non-significant project specific amendment to the Forest Plan because the amendment will be short-term in nature with the standard being exceeded only when harvest activities are occurring, and upon completion of all harvest related activities, the open road density will return to the current level of 1.9 miles per square mile; it applies to the Pilgrim Creek Timber Sale project only; it affects less than one percent of the total summer range on the Forest; project implementation would not decrease habitat effectiveness for big game from existing conditions upon completion; and proposed harvest activities would meet the goals of this MA by providing timber and improving forage quantity and quality and restoring ecosystem sustainability. This project specific amendment allows achievement of the overall Forest Plan goal for this Management Area, which is to "maintain or enhance non-winter big-game habitat (i.e. summer/ fall) and produce a programmed yield of timber. The major species include black bear, grizzly bear, elk, moose, whitetail deer, and mule deer (Forest Plan, Vol. 1, p. III-48)."

Alternative 3 will result in the creation of six openings which will exceed 40 acres. Large timber harvest units were developed for five primary reasons: 1) to treat stands of lodgepole pine impacted by mountain pine beetles; 2) to treat areas being impacted by root disease; 3) proposed openings would encompass previously harvested units, softening the edges and increasing the scenic integrity.; 4) the creation of large openings more closely resembles those created by natural processes; 5) larger regeneration patch sizes would be consistent with those created by historic disturbance regimes.

The National Forest Management Act (NFMA) of 1976, Section 6 (g)(3)(F)(iv), establishes opening size limits according to geographic areas, forest types, or other suitable classifications. Regional Guidelines as stated in the Forest Service Manual 2400, Chapter 2470, R1 Supplement 2400-2001-2 dated February 22, 2002, allows for openings created by even-aged silviculture to exceed 40 acres, provided there is a 60-day public review period and Regional Forester approval. Public review on the Pilgrim Creek Project included a 30 day public scoping period, and a 45 day comment period on the DEIS. The Regional Forester has approved our request to exceed the 40 acre opening size limitation for three areas, and I have approved three openings caused by insect attack. With the inclusion of this Regional Forester approval, Alternative 3 is consistent with the NFMA requirement.

Grizzly Bears

The Pilgrim Creek Timber Sale project is outside of the Cabinet-Yaak grizzly bear recovery zone but lies within the Clark Fork Bears Outside of the Recovery Zone (BORZ). There is also no evidence of a resident population of grizzlies south of the Clark Fork BORZ on the west side of the reservoirs. Bears that have been detected within the project area and larger BORZ are suspected to have originated within the recovery zone.

The standards in BORZ are:

- No permanent increase in total or open road density above baseline levels.
- Potential increases in miles of open or total roads must be compensated for with in-kind reductions concurrently or prior to such increases.
- A provision for temporary increases in linear miles for projects but also measures to minimize the impacts of such increases, such as seasonal restrictions of public use to the June 16 – August 31 period.
- Scheduling considerations in future timber sale planning to avoid concurrent disturbance in multiple watersheds.

By meeting these standards (DEIS page 119), the Pilgrim Creek Project is consistent with the Forest Plan Amendments for Motorized Access Management with the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones (USDI 2011). Additionally, a food storage order designed to reduce bear/human conflicts and corresponding mortality risk is in place on the Kootenai NF (DEIS page 3-114).

While displacement from an area will likely occur when harvest activity is occurring in the units, secure habitat is available within Inventoried Roadless Areas within the Pilgrim planned sub-unit and the Elk Creek drainage. The proposed timber harvest will enhance the production of grasses, forbs, and berries within the harvest units. Previously restricted (gated roads) will remain gated and new roads constructed for the project will be made impassable to motorized vehicles (DEIS page 3-118).

The selected alternative is designed to address insect and disease problems and improve foraging habitat for big game and grizzly bears. Treatments include regeneration, thinning, prescribed fire, and precommercial thinning. Opening up these stands will permit more light to reach the ground and reduce competition for existing nutrients. This will result in the rejuvenation of grasses and forbs in the units, important forage species for grizzly bears and deer and elk.

The 2011 biological opinion on the Access Amendment (US Fish and Wildlife Service 2011) provides an incidental take statement concerning grizzly bears that may occur both inside and outside of the CYE recovery zone on the Forest. In doing so, the effects of core area and open and total motorized route density were analyzed for the Cabinet Yaak Ecosystem (CYE) recovery zone and effects of linear road densities were analyzed for grizzly bears outside of the recovery zones (BORZ). The effects of access management on grizzly bears in the CYE, including the action area, were fully considered in the analysis in the 2011 biological opinion on Access Management (USFWS, Letter of Concurrence 2013).

Old Growth

The selected alternative maintains 10% of designated old growth in the Pilgrim Creek planning subunit (DEIS, page 3-53), well distributed across dominate habitat types of suitable National Forest acres below 5,500 feet elevation. There are no mechanical treatments proposed in designated effective or replacement old growth under the selected alternative, but prescribed burning will occur on approximately 697 acres (DEIS page 3-53) to return the stands to historic stocking levels after years of fire suppression. This treatment will increase growth and vigor in the trees left on site, which would enhance growth into larger tree diameters (DEIS page 3-55). As documented in this decision, activities will maintain existing old growth conditions.

The selected alternative would maintain a sufficient amount and distribution of old growth forest habitat as directed by the Kootenai Forest Plan. The Forest Plan Monitoring and Evaluation Report for FY 2011 (Monitoring Report-USDA Forest Service, 2012) documents the forest-wide status of old growth. Two different data sources are used to evaluate the amount of old growth forest-wide: 1) the Forest Inventory and Analysis (FIA) provides a congressionally mandated, statistically-based, continuous inventory of the forest resources of the United States. The FIA data provides a statistically sound representative sample designed to provide unbiased estimates of forest conditions at large and medium scales. This inventory design is appropriate for making estimates of old growth percentages at the scale of a national forest and 2) stand-level old growth inventory that is aggregated and summarized at the Forest scale. Forest-wide analysis of old growth, which is disclosed in the FY 2011 Monitoring Report, concludes that at least 10% of the KNF below 5,500 feet is managed as old growth as required in the Forest Plan. Specifically, this report discloses that old growth or replacement old growth on the KNF totals 299,294 acres or 16% of acres below 5,500 feet based on the stand-level data (DEIS page 3-51). Of this 16% of old growth or replacement old growth on the Forest, 10.8% of acres below 5,500 feet were determined to be effective old growth. As described in the Monitoring Report, the FIA data is summarized forest-wide and does not measure old growth based on the criteria in the Forest Plan. The FIA data estimates effective old growth forest-wide at 9.0% of the Forest, with a 90% confidence interval of 7.2% to 10.9%. The acres of old growth from the stand-level inventory are just within the confidence interval for the FIA data.

The selected alternative will continue to provide viable habitat for old growth dependent species within the analysis area and would maintain old growth viability across the Forest. The selected alternative meets Forest Plan direction for management indicator species associated with old growth habitat. Adhering to Forest Plan direction in the form of goals, objectives, standards, and monitoring will provide for the needs of old growth-associated species. Considering this project, along with other proposed and foreseeable analyses across the Forest within undesignated and designated old growth, old growth would be maintained above the 10% standard specified in the Forest Plan. Project-specific information is on file at district and supervisor offices on the Forest. Cumulatively, the Pilgrim Creek Timber Sale project, in combination with other proposed and reasonably foreseeable Forest Service, State and private activities would maintain the designated management level of old growth at the drainage or compartment, as well as the Forest scale DEIS page 3-56).. After reviewing the DEIS, I find that my decision is consistent with Forest Plan standards, goals, and objectives as amended.

Visual Quality Objectives

For each management area, the Forest Plan established visual quality objectives (VQOs) based on methods described in The Visual Management System-Landscape Management Handbook Number 462 (USDA Forest Service 1974). These objectives identify standards of visual quality that proposed activities in those areas should meet. The Selected Alternative would be consistent with the Forest Plan VQOs (see pages 3-271 through 3-276 of the DEIS).

Soil and Water Resources

The NFMA requires that timber will be harvested from NFS lands only where soil, slope, or other watershed conditions will not be irreversibly damaged - 16 USC 1604(g)(3)(E)(i). All activities proposed are consistent with this direction.

The Forest Plan states that project plans for activities requiring the use of ground-based equipment will establish standards for the area allocated to skid trails, landings, temporary roads, or similar areas of concentrated equipment use (USDA Forest Service 1987a). None of the activities would exceed the Regional Soil Quality guidelines for detrimentally disturbed soils (FSM R1 Supplement 2500-99-1).

The Pilgrim Creek Timber Sale project is consistent with the goals, objectives, and standards for soil and water resources set forth in the Kootenai Forest Plan because project mitigation and BMPs have been included to protect soil and water resources. The BMPs include Soil and Water Conservation Practices at a minimum to control non-point source pollution and protect soil and water resources from permanent damage. The 2001 KNF Monitoring Report (USDA Forest Service 2002) states that monitoring between 1990 and 2001 shows that 94 percent of the BMPs implemented during that time were effective. Each of the alternatives would follow INFS standards and guidelines for any activities in riparian areas.

2. Suitability for Timber Production

No timber harvest, other than salvage sales or sales to protect other multiple-use values, shall occur on lands not suited for timber production {16 USC 1604(k)}.

All areas planned for timber harvest under the selected alternative occur on the suitable land base. In addition, all proposed harvest units have been reviewed by a silviculture forester and determined that they are located on suitable lands and capable of being regenerated within five years of timber harvest (DEIS page 3-44).

3. Timber Harvest on National Forest Lands

A Responsible Official may authorize site-specific projects and activities to harvest timber on National Forest System lands only where {16 USC 1604(g)(3)(E)}:

- **Soil, slope, or other watershed conditions will not be irreversibly damaged (16 USC 1604(g)(3)(E)(i)).** My decision avoids permanent impairment of site productivity (DEIS pages 3-260 through 261). This determination is supported by the effects disclosures in the (DEIS pages 3-245 through 261) and through the application of BMPs (DEIS, Appendix D). The project soils analysis found that the amount of cumulative detrimental soil disturbance is expected to be at or below the regional guideline of 15 percent for each of the proposed treatment units (DEIS pages 2-247 through 3-252).

- **There is assurance that the lands can be adequately restocked within five years after final regeneration harvest (16 USC 1604(g)(3)(E)(ii)).** Under the Selected Alternative approximately 898 acres are proposed for regeneration harvest, and these areas will be reforested through a combination of hand-planting and natural regeneration. Ninety-two percent of all regeneration harvested stands that have been hand-planted on the Cabinet Ranger District have been certified as stocked within five years of final harvest (DEIS page 3-45). Based on this success rate, it is my determination that successful reforestation, either through planting or natural regeneration, can be assured within five years, as required.

- **Streams, stream-banks, shorelines, lakes, wetlands, and other bodies of water are protected from detrimental changes in water temperatures, blockages of water courses, and deposits of sediment where harvests are likely to seriously and adversely affect water conditions or fish habitat (16 USC 1604(g)(3)(E)(iii)).** The selected alternative meets all Forest Plan standards as amended by the Inland Native Fish Strategy (INFS) (DEIS pages 3-199 and 3-200).

- **The harvesting system to be used is not selected primarily because it will give the greatest dollar return or the greatest unit output of timber (16 USC 1604(g)(3)(E)(iv)).** My decision to implement the Pilgrim Creek Timber Sale Project is based on a variety of reasons as discussed elsewhere in this ROD. Economics was only one of the many factors I considered in making my decision; the decision is not based primarily on the greatest dollar return, but rather it will be responsive to the stated purpose and need for the project.

4. Clearcutting and Even-aged Management

When timber is to be harvested using an even-aged management system, a determination that the system is appropriate to meet the objectives and requirements of the Forest Plan must be made and, where clearcutting is to be used, must be determined to be the optimum method {16 USC 1604(g)(3)(F)(i)}.

a. Determination that, where used, clearcutting is the optimum method:

In order to meet the purpose and need of the Pilgrim Creek Timber Sale project, prescriptions of seed tree with reserves, and shelterwood with reserves would be used in certain stands under all action alternatives. There is **no clearcutting proposed** for this project in any alternative. The decision path for this rationale is displayed in project file. Further information on proposed silvicultural treatments is described in Chapter 2 of the DEIS.

b. Determination that even-aged management system is appropriate to meet the objectives and requirements of the Forest Plan:

Timber stands within the area have evolved within a fire-dependent ecosystem. Within the Pilgrim Creek Project Area, Forest Plan objectives and requirements related to vegetation management are most clearly achieved through the use of even-aged management systems and, on some sites, through the use of intermediate systems. The ID Team has determined that prescribing even-aged systems on specified units is optimal in order to increase representation of desirable, fire- and insect/disease-resistant species in areas where current stand attributes limit options. Some stands proposed for regeneration harvest are lodgepole pine dominated stands with moderate mortality, due to the current and ongoing mountain pine beetle attacks. These stands are incurring greater than 40% or higher mortality (USDA, 2010). Other stands proposed for regeneration harvest currently have high rates of root disease incidence. The only way to increase representation of desirable species in either of these instances is to create growing conditions conducive to their establishment and growth; exposed seed bed, more sunlight, and less competition for nutrients and water from other trees, brush and herbaceous growth. Current insect and disease conditions in the proposed treatment units justify the need to treat these areas now. The decision path for this rationale is displayed in the silvicultural diagnoses in the project file (DEIS page 3-44).

It is my determination that proper use of even-aged systems and extensive application of long-term reserve tree concepts on appropriate sites can provide us with healthy, functioning ecosystems while providing a sustainable production of forest resources.

I have determined that the silvicultural systems in the Selected Action are appropriate to meet the objectives and requirements of the Forest Plan. Further discussion of alternative silvicultural systems and prescriptions and the use of even-aged management can be found in the DEIS pages 2-15 to 2-17, 2-34 through 2-37, and in the Vegetation Section in Chapter 3 of the DEIS.

c. The interdisciplinary review has been completed and the potential environmental, biological, aesthetic, engineering, and economic impacts have been assessed on each advertised sale area and the cutting methods are consistent with the multiple use of the general area (16 USC 1604 (g)(3)(F)(ii)).

As discussed in the DEIS, the environmental analyses were completed by an interdisciplinary team (see list of preparers in Appendix B of the DEIS). The cutting methods are consistent with the Forest Plan goals and objectives for the affected MA's (see pages 1-13 through 1-17, 3-43 through 3-46, of the DEIS).

d. Cut blocks, patches, or strips are shaped and blended to the extent practicable with the natural terrain (16 USC 1604 (g)(3)(F)(iii)).

Alternative 3 meets Forest Plan visual quality objectives (VQO's). See Scenic resource analysis, Chapter 3 of the DEIS, pages 3-262 to 3-276.

e. Cuts are carried out according to the maximum size limit requirements for areas to be cut during one harvest operation (16 USC 1604 (g)(3)(F)(iv)).

Forest Service policy (FSM 2471) states that the size of harvest openings created by even-aged silviculture in the Northern Region will be normally 40 acres or less. Creation of larger openings will require 60-day public review and Regional Forester approval, with the following exception that is applicable to this project:

- Where natural catastrophic events such as fire, windstorms, or insect and disease attacks have occurred, 40 acres may be exceeded without 60-day public review and Regional Forester approval, provided the public is notified and the environmental analysis supports the decision.

The selected alternative would create six openings greater than 40 acres, for a total of 922 acres. Three openings (201 acres, 321 acres, and 50 acres) will result from regeneration harvest in stands being infested by mountain pine beetle or infected with root disease. While the remaining three regeneration harvest units have occurrences of mountain pine beetle or root disease, they are generally over 40 acres due to their juxtaposition to each other or existing openings (DEIS, pg. 2-17 through 2-20). On April 8, 2013, as Forest supervisor, I approved the creation of three opening openings (201, 321, and 50 acres) exceeding 40 acres due to the catastrophic mountain pine beetle infestation. (DEIS, 2-19)

Regional Forester Approval Associated with this Decision: The Selected Action includes regeneration harvest on suitable lands that result in three contiguous openings greater than 40 acres (76, 187, and 87 acres), described in the DEIS on pages 2-8 and 2-34. On April 19, 2013, the Regional Forester approved the creation of these three openings which exceed 40 acres in size. More information regarding these harvest units and their approval by the Regional Forester is located in the project file

f. Timber cuts are carried out in a manner consistent with the protection of soil, watershed, fish, wildlife, recreation, esthetic resources, cultural and historic resources, and the regeneration of timber resources (16 USC 1604 (g)(3)(F)(v)).

The timber harvest conducted under the selected alternative provides the necessary protection for the above resources. This determination is supported by disclosures in Chapter 3 of the DEIS. The Standards and Guidelines contained in the Forest Plan are designed to provide the desired effects of management practices on the other resource values. Alternative 3 meets or exceeds applicable Standards and Guidelines, as noted under "Consistency with Forest Plan" in this section. My consideration of these factors is documented throughout Chapters 2 and 3 of the DEIS and the project file.

5. Stands of trees are harvested according to requirements for culmination of mean annual increment of growth (16 USC 1604(m)). Standards state that stands of trees generally will have received culmination of mean annual increment of growth before they are harvested. This does not preclude the use of thinning or other stand improvement measures. These standards also do not preclude salvage or sanitation harvesting of timber stands which are substantially damaged by fire, windthrow or other catastrophe, or which are in imminent danger from insect or disease attack (16 USC 1604(m)(1)).

A large portion of the analysis area is composed of even-aged Douglas-fir that is of age and size that is vulnerable to insects and disease. Lodgepole pine stands are also vulnerable to increased attacks by insects, primarily mountain pine beetle. The current infestation is not expected to subside until the majority of the lodgepole pine over 8” dbh has been infested. Regeneration harvest would reduce acres of susceptible Douglas-fir and lodgepole pine, and thinning should provide improvement of general vigor in the long run.

Forest Plan direction provides that timber management activities will be the primary process used to minimize the hazards of insects and diseases and will be accomplished by maintaining stand vigor and diversity of plant communities and tree species.

High stocking levels currently in a number of stands would result in an increased vulnerability to an array of insect and disease agents. All action alternatives are consistent with the goal of reducing this risk to varying degrees. These alternatives use treatments that would effectively treat stands with high stand densities, leading to an increased resilience or resistance to these agents and lowering the severity of fire effects within the stand. This would be accomplished by favoring retention of ponderosa pine, western larch, and western white pine, all fire adapted species relatively resistant to an array of common root diseases and mountain pine beetle (DEIS page 3-45).

Intermediate and regeneration harvests are proposed for some stands in order to break-up crown continuity and reduce canopy bulk density to lower the risk of crown fire, to improve tree vigor of the desired leave trees particularly long-lived fire adapted species such as western larch, ponderosa pine and Douglas-fir as well as maintain or enhance plant diversity. NFMA provides for these treatments where they increase the growth rate of residual trees, favor commercially valuable species, favor species valuable to wildlife, or achieve some other multiple use objectives (DEIS page 3-44).

6. Wildlife Diversity

The NFMA directs the Forest Service to provide for the diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives, and within the multiple-use objectives of a land management plan adopted pursuant to this section, provide, where appropriate, to the degree practicable, for steps to be taken to preserve the diversity of tree species similar to that existing in the region controlled by the plan." (16 USC 1604(g) (3)(B)). One of the goals of the Forest Plan is to maintain diverse age classes of vegetation for viable populations of all existing native, vertebrate, wildlife species, including old-growth timber in sufficient quality and quantity to maintain viable populations of old-growth dependent species and to maintain habitat diversity representative of existing conditions. (FP Vol. 1, page II-1) Based on my review of the wildlife Biological Assessment and Biological Evaluation for the Pilgrim Creek Timber Sale Project (located in the project file), I conclude that my decision provides for the diversity of plant and animal communities in the project area.

7. Sensitive Species

Federal law and direction applicable to sensitive species includes the National Forest Management Act and the Forest Service Manual (2670). The Regional Forester has prepared a list of sensitive plants and animals for which population viability is a concern. In making my decision, I have reviewed the analysis and projected effects on all sensitive species listed as possibly occurring on the Kootenai National Forest (DEIS, pages 3-84 through 3-111). Based on the Biological Evaluation, there will be **No Impact** from any of the alternatives to the bighorn sheep, common loon, flammulated owl, harlequin duck, northern bog lemming, northern leopard frog, and wolverine since these species not suspected to occur in the project area. The action alternatives will have **No Impact** on Peregrine falcon or bald eagle. The action alternatives **May Impact Individuals or Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Cause a Loss Of Viability to the Population or Species** for black-backed woodpecker, Coeur d'Alene salamander, fisher, gray wolf, Townsend's big-eared bat, and western toad. I believe that the findings for these species, documented in the Wildlife section of Chapter 3 in the DEIS, ensures opportunities for future habitat management.

The wolverine is now a proposed threatened species, per the findings of the USDI Fish and Wildlife Service, 50 CFR Part 17 , 78 FR 7864, Endangered and Threatened Wildlife and Plants; Threatened Status for the Distinct Population Segment of the North American Wolverine Occurring in the Contiguous United States, dated February 4, 2013, found at http://federalregister.gov/a/2013-01478. Wolverines are not suspected to occur within the Pilgrim Creek project area, because suitable denning habitat does not occur and there have been no reported sightings in the area. Based on the science presented in the rule, I do not expect our actions under the Pilgrim Creek Timber Sale project to rise to a level that would constitute a jeopardy finding, which is consistent with the findings of the proposed rule, which states: *"Wolverines are not thought to be dependent on specific vegetation or habitat features that might be manipulated by land management activities, nor is there evidence to suggest that land management activities are a threat to the conservation of the species. The available scientific and commercial information does not indicate that other potential stressors such as land management, recreation, infrastructure development, and transportation corridors pose a threat to the DPS."*

8. Standards of Roadway Construction

The NFMA requires that the necessity for roads be documented and that road construction be designed to "standards appropriate for the intended uses, considering safety, cost of transportation and impacts on land and resources" [16 USC 1608]. The NFMA also requires that "all roads are planned and designed to re-establish vegetation cover on the disturbed areas within a reasonable period of time, not to exceed 10 years ...unless the road is determined a necessary permanent addition to the National Forest Transportation System" [16 USC 1608 Sec. 8]. A transportation plan, including a Travel Analysis Process, was completed for this project and is located in the project file.

Management actions associated with this project include construction of new permanent roads. Road reconstruction will be completed using BMPs to protect aquatic and soil resources (DEIS pages 3-39, 3-180, 3-184 through 3-188). Potential impacts of the selected alternative from road construction and reconstruction have been assessed and are displayed in the DEIS, with supporting information in the project file.

B. The Clean Water Act and State Water Quality Standards

There are two dominant perennial channels in Pilgrim Creek project area, the mainstem of Pilgrim Creek and the mainstem of Stevens Creek. Smeads Creek and Hemlock Gulch display ephemeral channel characteristics in locations that do not show signs of continuous connectivity and have predominantly dry draw characteristics.

Montana's 1996 303(d) list classified 11 miles of Pilgrim Creek as impaired (DEQ, 1996).The more recent 2002 303(d) list included 7 miles (channel length re-measured in 1999) of Pilgrim Creek from the headwaters to the mouth at Cabinet Gorge Reservoir (DEQ, 2002) (DEIS page 3-160).

Pilgrim Creek is classified as an A-1 water body. Waters classified A-1 are high quality waters suitable for drinking, culinary and food processing purposes after conventional treatment for removal of naturally present impurities. Water quality must be suitable for bathing, swimming, and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl, and furbearers; and agricultural and industrial water supply (State of Montana 1996) (DEIS page 3-160). The CWA also requires states to identify water bodies they believe are not meeting water quality standards and are at risk of not supporting their designated beneficial uses. These water bodies are called Water Quality Limited Segments (WQLS). There is one WQLS water body within the Pilgrim Creek Analysis Area - Pilgrim Creek. With the exception of the Noxon Face tributaries, Stevens Creek and Smeads Creek, the entire analysis area falls within the watershed of this WQLS (DEIS page 3-161).

All alternatives comply with the Clean Water Act. Each alternative is expected to maintain or improve stream conditions in the Analysis Area. This expectation is based on: surveys of existing watershed conditions; the conclusion of the Water Yield analysis that peak flow increases would not exceed recommended levels; the designation of RHCAs, the application of BMPs to all proposed road work, timber harvest and underburning activities; evidence from Forest monitoring results and the literature regarding the effectiveness of BMPs; and the conclusion that the effects of BMP improvements to roads would reduce existing surface water and sediment contributions from the road network and disconnecting ditch water from perennial streams (DEIS page 3-199).

The watershed monitoring, described in Appendix J of the DEIS, combined with BMP Implementation and Effectiveness Reviews, which include a feedback loop for BMP modification to partially satisfy the State's requirements for TMDL development on WQLS affected by nonpoint source impacts. These steps will document the results of the protective measures employed in this project, serve as ongoing monitoring of their effectiveness in protecting water quality and downstream beneficial uses, and provide data for developing future management. I believe that Alternative 3 will maintain beneficial uses and complies with the Clean Water Act (DEIS pg 3-199 and 3-200).

The Selected Alternative for the Pilgrim Creek Timber Sale project has been designed to avoid point source discharges through implementation of applicable BMPs at road stream crossings. This required BMP work on the timber haul roads will be implemented to disconnect ditch water from the stream network and is

designed to avoid the discharge of storm water into waters of the United States from the roads used for haul on this timber sale (DEIS page 3-199). National Pollutant Discharge Elimination System (NPDES) permits are not required for this project.

C. The Clean Air Act

Upon review of the DEIS (Chapter 3 pages 3-321 through 3-334), I find that the selected alternative will be coordinated to meet the requirements of the State Implementation Plans, Smoke Management Plan, and Federal air quality requirements.

D. The Endangered Species Act (16 USC 1531 et. seq.)

In accordance with Section 7 (c) of the Endangered Species Act (ESA), as amended, a list of the listed and proposed threatened or endangered species which may be present in the Pilgrim Creek Timber Sale Project Area was obtained from the US Fish and Wildlife Service in 2011 and 2012. The information provided indicated that for the influence area of the Pilgrim Creek Timber Sale project area: the grizzly bear is suspected to occur; Canada lynx is not suspected to occur as residents, and bull trout may be present within the project area (see Consultation Section of the project file).

As required by the Act, Biological Assessments were prepared addressing the potential impacts to these species. The analyses concluded that this project will have **no effect** on Spalding's catchfly; **may affect but is not likely to adversely affect** grizzly bear, or Canada lynx; and **no effect** to bull trout. This assessment has been reviewed by the US Fish and Wildlife Service. On March 28, 2013, the USFWS issued written concurrence that Alternative 3 is not likely to adversely affect the threatened grizzly bear in ways other than those analyzed in the 2011 biological opinion on Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones and grizzly bear reoccurring use areas outside of the recovery zones (BORZ) on the Kootenai, Idaho Panhandle, and Lolo National Forests. The Service also concurs that Alternative 3 is not likely to adversely affect the threatened Canada lynx On October 18, 2011, the Service issued the biological opinion on the effects of the Access Amendment. Copies of the Biological Assessment, and Letter of Concurrence, are included in the Pilgrim Creek Timber Sale FEIS and project file.

Grizzly: The Pilgrim Creek Timber Sale project is in compliance with ESA for grizzly bears based on: 1) consistency with the Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones (2011), 2) Informal Consultation with USFWS was completed.

The Statement of Findings indicate that the selected action is not likely to adversely affect the grizzly bear. This determination is based on: 1) no permanent increase in mortality risk resulting from the temporary increase in total road density in the Clark Fork BORZ polygon, 2) temporary roads constructed for the project will be restricted to the public, while the project is active, 3) Post-project, roads may be temporarily left open to allow the public an opportunity to harvest firewood, 4)Suitable secure habitat exists within and adjacent to project area, 5) there is the potential for temporary displacement, 6) No change to livestock or food attractant situation.

Lynx: the District files contain no occurrences of lynx within the Pilgrim planning sub-unit (PSU). Surveys conducted for lynx include 595 camera nights of remote camera carnivore survey and winter track surveys. No lynx have been detected in or near the Pilgrim Creek drainage in at least the last 20 years. The project area was not designated critical habitat because it is not occupied by Canada lynx. Lynx are not suspected to occur in the project area based on a lack of reports of occurrence and Pacific maritime influences on snow conditions and climate (DEIS page 3-121). The Statement of Findings indicate that the selected action will have no effect on the Canada lynx. This determination is based on: 1) all standards, guidelines, and objectives designed to maintain lynx habitat are met, 2)vegetation management in stands that currently do not provide snowshoe hare habitat will enhance conditions for lynx, 3) there will be no increase in access, 4) the project area is not located in Canada lynx critical habitat; and 5) the lack of verified sightings anywhere on the District in the last 15 years makes is unlikely that lynx would be present or affected by project activities.

E. National Historic Preservation Act

Known prehistoric and historic sites found within the Pilgrim Creek project area are outside the proposed harvest area boundaries (DEIS page 3-306). Heritage resource overviews have been completed on all areas to be impacted by ground-disturbing activities. No heritage resources are expected to be affected by this action. Recognizing that the potential exists for unidentified sites to be encountered and disturbed during project activity, contract provision BT6.24 will be included in all timber sale contracts. This provision allows the Forest Service to unilaterally modify or cancel a contract to protect heritage resources regardless of when they are identified. This provision will be used if a site were discovered after a harvest operation had begun. The surveys, analysis and protection of heritage resources within this project area area consistent with the Memorandum of Understanding with the Forest Service and the State Historical Preservation Office.

F. American Indian Religious Freedom Act and Native American Grave Protection Act

The Forest Service consulted with the Confederated Salish and Kootenai tribes and the Kootenai Tribe of Idaho during the analysis process. The intent of this consultation has been to remain informed about Tribal concerns regarding the American Indian Religious Freedom Act (AIRFA) and other tribal issues. In addition, the Flathead, Kootenai, and Upper Pend d'Oreilles Indian Tribes reserved rights under the Hellgate Treaty of 1855 (July 16, 1855). These rights include the "right of taking fish at all usual and accustomed places, in common with citizens of the Territory, and of erecting temporary buildings for curing; together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land." The federal government has trust responsibilities to Tribes under a government-to-government relationship to insure that the Tribes reserved rights are protected. Consultation with the tribes throughout the project planning helped insure that these trust responsibilities were met (DEIS pages 3-303 to 3-306, 3-343, 3-344).

G. Environmental Justice

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires that Federal agencies make achieving environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high adverse human health and environmental effects of their programs, policies and activities on minority populations and low-income populations. The public and American Indian tribes were notified of this project and no issues with the proposed action were identified in regard to low income and minority populations. I conclude that the risk of such disproportionate effects on minority or low-income populations from this action is very low. My decision does not pose any significant socio-economic risks that disproportionately affect low-income or minority populations in communities where timber producing employment opportunities and workers are located. The implementation of the Pilgrim Creek Timber Sale project will not cause a significant change in local employment or revenue sharing with local communities. This project was designed, in part, to contribute to the economic well-being of local communities. This decision will not disproportionately affect low-income or minority populations and communities.

H. Migratory Bird Treaty Act

On January 10, 2001, President Clinton signed an Executive Order outlining responsibilities of federal agencies to protect migratory birds. Upon review of the effects analysis regarding Neotropical migratory birds in the DEIS, page 3-94 and FEIS Appendix 4, I find that the selected alternative complies with this Executive Order.

I. National Fire Plan

The proposed action for the Pilgrim Creek Timber Sale project responds to the intent of the National Fire Plan (DEIS, pages 3-135 through 3-158). I have determined that the selected alternative meets the goals and objectives of the National Fire Plan to: 1) reduce the number of small fires that become large, 2) reduce the threat to life and property from catastrophic wildfire, 3) increase firefighter safety, and 4) restore natural ecological systems to minimize uncharacteristically intense fires.

J. Scientific Integrity

My conclusion is based on a review of the record that shows a thorough review of relevant scientific information, a consideration of responsible opposing views, and the acknowledgment of incomplete or unavailable information, scientific uncertainty, and risk. Throughout Chapter 3 of the DEIS each specialist on the Interdisciplinary Team focused on use of scientific information which was relevant or applicable to their resource field, as reflected in the analysis documentation. The manner in which scientific information is addressed can be found within the Response to Comments, Biological Assessment, and the project file. Appendix G of the DEIS includes an extensive list of referenced literature and these references are included in the project file. Reference citations are found throughout the DEIS, indicating how the analysis is tiered to relevant science.

K. Administration of the Forest Transportation System – Travel Management – 36 CFR Part 212 et al. (Published In The Federal Register On November 9, 2005).

A travel analysis has been prepared for the Pilgrim Creek analysis area (see Transportation Section of the project file). I have determined that the selected alternative, which includes 4.7 miles of new permanent road construction and the construction of 1.1 miles of temporary road, complies with the Travel Management Rule.

The Pilgrim Creek Project Area has several areas without current road access, as well as areas with a varying degree of access. The IDT used a Travel Analysis Process to evaluate existing and future road management options. The timber harvest associated with the Selected Action will provide practical access to these areas through the following road management activities:

- *Reconstruction*: To facilitate timber hauling, improve surface water management, and reduce sediment generated from roads, approximately 47 miles of reconstruction will be completed.

- *Permanent System Road Construction*: This Alternative includes building approximately 4.7 miles of new system road to facilitate timber harvest. These roads are needed for future management and will become part of the permanent transportation system.

- *Temporary Road Construction*: Approximately 1.1 miles of temporary road will be built under this Alternative. These roads will be obliterated after harvest.
- *Access Management Strategy*: under this Alternative, some roads that are currently closed or restricted will be opened to allow harvest-related access. The access management strategy for this Alternative is described in Appendix C of the DEIS.

L. Compliance with other laws, regulations, and policies

Compliance with other laws, regulations and policies are listed in various sections of the DEIS including pages 3-343 through 3-351, the Project File, and the Kootenai Forest Plan.

IX. APPEAL PROVISIONS AND IMPLEMENTATION

This decision is subject to appeal pursuant to 36 CFR 215.11. A written appeal must be submitted within 45 days following the publication date of the legal notice of this decision in the (*Daily Inter Lake*, Kalispell, Montana). It is the responsibility of the appellant to ensure their appeal is received in a timely manner. The publication date of the legal notice of the decision in the newspaper of record is the *exclusive* means for calculating the time to file an appeal. Appellants should not rely on date or timeframe information provided by any other source.

Paper appeals must be submitted to:

USDA Forest Service, Northern Region
ATTN: Appeal Deciding Officer
P.O. Box 7669
Missoula, MT 59807

or

USDA Forest Service, Northern Region
ATTN: Appeal Deciding Officer
200 East Broadway
Missoula, MT 59802

Office hours: 7:30 a.m. to 4:00 p.m.

Electronic appeals must be submitted to:

appeals-northern-regional-office@fs.fed.us

Faxed appeals must be submitted to: FAX: (406) 329-3411

In electronic appeals, the subject line should contain the name of the project being appealed. An automated response will confirm your electronic appeal has been received. Electronic appeals must be submitted in MS Word, Word Perfect, or Rich Text Format (RTF).

It is the appellant's responsibility to provide sufficient project- or activity-specific evidence and rationale, focusing on the decision, to show why my decision should be reversed. The appeal must be filed with the Appeal Deciding Officer in writing. At a minimum, the appeal must meet the content requirements of 36 CFR 215.14, and include the following information:

- The appellant's name and address, with a telephone number, if available;
- A signature, or other verification of authorship upon request (a scanned signature for electronic mail may be filed with the appeal);
- When multiple names are listed on an appeal, identification of the lead appellant and verification of the identity of the lead appellant upon request;
- The name of the project or activity for which the decision was made, the name and title of the Responsible Official, and the date of the decision;
- The regulation under which the appeal is being filed, when there is an option to appeal under either 36 CFR 215 or 36 CFR 251, subpart C;
- Any specific change(s) in the decision that the appellant seeks and rationale for those changes;
- Any portion(s) of the decision with which the appellant disagrees, and explanation for the disagreement;
- Why the appellant believes the Responsible Official's decision failed to consider the comments; and
- How the appellant believes the decision specifically violates law, regulation, or policy.

If an appeal is received on this project there may be informal resolution meetings and/or conference calls between the Responsible Official and the appellant. These discussions would take place within 15 days after the closing date for filing an appeal. All such meetings are open to the public. If you are interested in attending any informal resolution discussions, please contact the Responsible Official or monitor the following website for postings about current appeals in the Northern Region of the Forest Service: http://www.fs.usda.gov/goto/r1/appeal-meetings"

Implementation

If no appeal is received, implementation of this decision may occur on, but not before, five business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition.

This project will be implemented in accordance with Forest Service Manual and Handbook direction for timber sale implementation in FSM 2430.3 and FSH 2409.18. This direction provides a bridge between project planning and implementation and will ensure execution of the actions, environmental standards and mitigation approved by this decision and compliance with other laws.

The selected alternative will result in a timber sale which is planned for advertisement in the summer of 2013. Project treatments will likely begin in 2014 and post-harvest treatments (such as prescribed burning and reforestation) will likely continue through the year 2023. Typically, BMP work on haul roads will be accomplished prior to hauling of timber products. These dates are tentative, based upon anticipated budgets, work force, weather, and other considerations.

X. CONTACT PERSON

Detailed records of the environmental analysis are available for public review at the Cabinet Ranger Station, 2693 Highway 200, Trout Creek, Montana, 59874. Telephone number: (406) 827-3533.

For further information on this decision, contact John Gubel, District Ranger, or John Head, Environmental Coordinator, Cabinet Ranger District, 2693 Highway 200, Trout Creek, Montana, 59874 (406-827-3533).

Paul Bradford

PAUL BRADFORD
Forest Supervisor

5/7/2013

Date

Appendices

Appendix 1 - Alternative 3 Unit Treatment Summary

Unit	Acres	Treatment	Logging System	Slash Treatment	Regeneration Method (if applicable)
1	26	Aspen enhancement	Tractor	YT/FAS/FDR/ GP/JB	N/A
2	68	CT	Tractor	YT/FDR/GP/JB	N/A
3	69	CT	Tractor	YT/S/GP/JB	N/A
4	35	SW	Skyline	YT/FDR/L+S (No Burn)	Plant
5	14	SW	Skyline	YT/FDR/GP (No Burn)	Plant
6	8	SW	Skyline	YT/FDR/GP (No Burn)	Plant
8	62	SW	Skyline	YT/FDR/L+S (No Burn)	Natural
10T	18	ST	Tractor	LT/FDR/BB	Natural
10S	61	ST	Skyline	LT/FDR/BB	Natural, plant WP/WL for spp. Diversity
10B	75	ST	Skyline	YT/FDR/UB	Natural, plant WP/WL for spp. Diversity
11B	25	ST	Skyline	YT/FDR/UB	Natural
12S	10	ST	Skyline	LT/FDR/BB	Natural, plant WP/WL for spp. Diversity
12	171	ST	Tractor	YT/FDR/GP/JB	Natural, plant WP/WL for spp. Diversity
12B	75	SW	Skyline	YT/FDR/UB	Natural

Unit	Acres	Treatment	Logging System	Slash Treatment	Regeneration Method (if applicable)
16	8	CT	Skyline	YT/FDR/L+S (No Burn)	N/A
18	26	SW	Skyline	YT/FDR/UB	Plant
19	26	CT	Skyline	YT/FDR/UB	N/A
21A	31	CT	Skyline	YT/FDR/UB	N/A
21B	30	CT	Tractor	YT/FDR/UB	N/A
23	4	ST	Tractor	LT/FDR/BB(Fire line)	Natural, plant WP/WL/PP for spp. Diversity
23B	18	CT	Tractor	YT/FDR/UB	N/A
24	21	CT	Skyline	YT/FDR/UB	N/A
25	30	SW	Skyline	YT/FAS/UB	Plant
26	57	CT	Skyline	YT/FDR/L+S (No Burn)	N/A
27	30	ST	Skyline	YT/FDR/UB	Plant
28	20	CT	Skyline	YT/FDR/L+S (No Burn)	N/A
28A	3	CT	Tractor	YT/FDR/GP/JB	N/A
29	16	CT	Tractor	YT/FDR/GP/JB	N/A
30	10	ST	Tractor	YT/FDR/GP/JB	Natural
31	30	ST	Skyline	YT/FDR/UB	Natural
32	10	ST	Tractor	YT/FDR/GP	Plant
34	27	CT	Skyline	YT/TNS/FDR/FAS/UB	N/A
34A	26	CT	Skyline	YT/TNS/FDR/FAS/UB	N/A

Unit	Acres	Treatment	Logging System	Slash Treatment	Regeneration Method (if applicable)
35	56	CT	Skyline	YT/FDR/L+S (No Burn)	N/A
36	34	CT	Skyline	YT/FDR/L+S (No Burn)	N/A
37	34	SW	Skyline	YT/FDR/L+S (No Burn)	Plant
39	20	SW	Tractor	YT/FDR/GP/JB	Plant
39A	36	SW	Tractor	YT/FDR/GP/JB	Plant
39B	33	ST	Tractor	YT/S/GP/JB	Plant
40	35	ST	Skyline	YT/FAS/UB	Plant
40B	27	SW	Skyline	YT/FDR/L+S (No Burn)	Plant
40C	19	SW	Tractor	YT/S/GP/JB	Plant

Slash Treatment Key: BB= Broadcast Burn, FDR= Fall Damaged Residuals (understory), GP= Grapple Pile, burn piles, JB= Jackpot Burn, L+S= Lop and Scatter, LT= Leave Tops, UB= Underburn, YT= Yard Tops to landing, TNS= Take non-saw, FAS= Force account slash (Forest Service crews)

Appendix 2 - Design Criteria

The following project-specific design criteria are included as part of the Selected Alternative, as summarized below:

- Best Management Practices (BMPs) will be implemented on timber haul roads, timber harvest units, and prescribed burn areas;
- All timber harvest units will be designed to retain Forest Plan standards for adequate levels of snags where available, replacement snags and coarse woody material to provide for cavity-associated wildlife species, small mammal habitat, and long-term soil productivity;
- Slash generated during harvest activities will be treated to reduce the risk of hazardous fire;
- Adequate coarse woody debris will be retained in harvest units to provide for long-term nutrient cycling;
- New road construction will be kept to the minimum required to treat forest stands;
- Riparian Habitat Conservation Areas (RHCAs, i.e. streamside) buffers will be delineated in all treatment areas;
- Noxious weed control measures, including equipment inspection and washing, and seeding of disturbed areas such as new roads and landings will be implemented though contract authorities to minimize the spread of weeds into treatment areas;
- Timing restrictions will be used as appropriate to minimize the potential for sediment delivery into streams during road work and harvest activities; and
- No timber harvest activities will occur within Inventoried Roadless Areas (IRAs). Prescribed burning will occur within portions of the IRAs. Burning will be conducted in a manner so as to maintain their natural character and improve wildlife habitat. The integrity of inventoried roadless areas will be maintained.
- Portions of several historic trails included in units will be protected during project activities and restored following completion of harvest related activities.

As described below, various measures developed during the design phase of the project are incorporated into the Selected Alternative to lessen potential impacts and to avoid potential resource damage.

1. **Logging/mechanical treatment areas design criteria include:**

   • **Cultural Resources:** Contract provisions to protect cultural resources will be in place in the event there is a discovery at any point in implementation.

   • **Inventoried Roadless Areas:** Prescribed burning will be conducted in such a manner as to preserve or improve roadless area characteristics.

   • **Soils:**

   For tractor-yarded Units:

   a. Soil and Water Conservation Practices as identified in Forest Service Handbook 2509.22 will be applied to all timber harvest, road construction, reconstruction, post-harvest activity fuel treatments. BMPs, the *INFS*, and *Kootenai National Forest Riparian Area Guidelines*.
   b. Ground-based yarding, processing, and harvester equipment will generally operate on slopes under 35%.
   c. All new skid trails will be agreed upon and designated on the ground by the purchaser and the Forest Service before felling begins.
   d. Main skid trail spacing will be 75 feet or greater on ground skid units, except where the trails converge to landings and as terrain dictates otherwise. All other trails will be spaced at maximum reaching distances.
   e. Post-harvest, all main skid trails will be either covered using randomly placed logs (on contour) to reduce run-off, stabilized with water-bars, or a combination thereof.
   f. Operating equipment will avoid moist or wet depression areas unless properly protected by snow or frozen conditions.
   g. Coarse down woody will be scattered throughout harvest units as required by the silvicultural prescriptions.

• Soils:

For skyline-yarded Units:

a. The leading end of logs will be suspended during skyline yarding.
b. Feller-bunchers used for falling in skyline units will operate on slopes less than 50% and move/operate only straight up and down the fall line.

• Soil productivity and nutrient cycling:

Large down-woody material for soil productivity and nutrient recycling will be maintained by the following:

a. Down woody retention levels will be maintained to meet the following objectives; in moist forest habitat treatment areas, Graham et al. (1994) recommends retaining 15-30tons/acre of down woody material greater than 3 inches in diameter; in drier habitat types the recommended retention level is 10-20 tons/acre of down woody material greater than 3 inches in diameter.
b. Prescribed underburning will generally take place in the spring and pile burning in the fall during periods of relatively high soil moisture.

• Scenic and Visual Quality:

a. Created openings and treatment areas should not be symmetrical in shape.
b. Created openings should resemble the size and shape of those found in the surrounding natural landscape.
c. Along roadways, vary unit sizes, widths, shapes and distance from the center line.
d. Edges will be shaped and/or feathered to avoid a shadowing effect in the cut unit.
e. Where compatible with stand management objectives, leave a diversity of species and age classes.
f. Where feasible, retain screening trees one tree-height below roads and landings when viewed from below. Avoid creating a straight edge of trees by saving clumps of trees and single trees with varied spacing.
g. Minimize the number of skyline corridors in visually sensitive areas.

• Noxious weed control

Equipment used for logging and road construction/reconstruction will be required to be pressure-washed prior to being allowed in the project area. Timber sale contract provisions for washing equipment for noxious weed control purposes will be used.

Timber Sale contract provisions that require the purchaser to pre-treat haul routes with herbicides to remove seed-bearing noxious weeds will be included in the timber sale contract also. Any treatment will be conducted in accordance with and under the authority of the Kootenai National Forest Invasive Plant Management EIS (2007).

• Snag Resource

All treated areas, in all management areas treated, will meet or exceed Forest Plan standards for snag retention (minimum of one snag/acre). One to two snags per acre and 2-4 live tree snag replacements will be retained, for a total of 3-6 per acre. Standing dead ponderosa pine and western larch will be left standing in harvest units unless they present a safety hazard. Any snags felled for safety purposes will be left on site.

• Wildlife

a. Activities in Units 21A, 21B, 23, and 23B will have no activities during the spring elk calving season (5/1-7/15) to maintain habitat security during this important time period, based on on-site evaluation of proposed units by the District wildlife biologist.

b. The proposed action includes 4,564 acres of natural fuels burning of which 530 acres is in designated old growth. Nine acres of the designated old growth in is planned for understory slashing prior to burning. These prescribed burns will be conducted under spring or fall conditions when soil moisture is high with the objective of reducing surface fuels and understory species (ladder fuels) to increase forage production, to ensure that old growth specific objectives are met. Monitoring (project file) of past projects indicates prescribed fire, and slashing followed with prescribed fire, are valid treatments to protect and enhance old growth characteristics.

c. All newly constructed and currently restricted roads opened for timber haul will have restrictions for public motorized access to minimize impacts to big-game habitat effectiveness. Gates will be installed with the road construction and reconstruction in the timber sale contracts. Following harvest activities, roads will be restricted to meet motorized route density standards, and motorized access will return to pre-project conditions. While the intent of these measures is to minimize impacts to big game habitat effectiveness, where opportunities exist to provide short-term access for public firewood gathering they will be considered. Roads may be opened for short periods of time (approximately one month) outside of big game hunting seasons. Any old growth areas or important wildlife snags will be off-limits to firewood gathering and signed or marked accordingly.

d. Snags and/or live tree snag replacements will be retained where opportunities exist in treatment units, as needed to meet Forest Plan standards and guidelines. The location of temporary roads, skid trails and yarding corridors will ensure whenever possible, that desirable trees and snags will not be removed during operations. The sale administrator will ensure, whenever possible, that the design of skid trails and cable corridors avoid these desirable trees and snags. Large diameter snags (greater than 16 inches dbh) that are felled for safety reasons will remain on site to provide for large woody debris recruitment and long-term site productivity. High hazard snags and snags in the advanced stages of decay will not be used to meet retention objectives. Retention practices will focus on ponderosa pine, western larch, and Douglas-fir trees, especially older and larger ponderosa pine and western larch trees.

e. Where grapple piling is prescribed for post-harvest fuels reduction, leave an occasional slash pile (i.e. 1 per 3 acres) where deemed appropriate by the District Wildlife Biologist, to provide habitat for small forest animals (e.g. snowshoe hares), while still meeting fuels objectives.

f. Research is divided on the effects of vegetation management within the nest stand of goshawks. Some studies have shown that modification of nest stands has minimal impact on re-occupancy and productivity of resident goshawks (Penteriani and Faivre 2001, Penteriani et al. 2002, Mahon and Doyle 2005, and Moser and Garton 2009). While other studies have found that vegetation management within the nest stand has a negative impact on reoccupancy and productivity of resident goshawks (Crocker and Bedford 1990 and Patla 2005).

   In response to these conflicting findings, under Alternative 3 a buffer of 40 acres was placed around the known goshawk nest and unit 5 was reduced in size from 46 acres to 14. So long as the nest area is considered active (for 5 years after the last documented use of the nest), no ground disturbing activities will occur within the 40 acre buffer area. Additionally, a timing restriction is in place for the 425 acre post-fledging area, no ground disturbing activities will take place between April 15 and August 15.

- **All listed species in the Biological Evaluation**

If any threatened, endangered, or sensitive species are located during project implementation, management activities will be altered, if necessary, so that proper protection measures can take place. Timber sale contract provisions that require the protection of Threatened, Endangered and Sensitive Species will be included in the timber sale contract.

The wildlife biological evaluation for this project included the following conservation requirements and/or recommendations, which will be incorporated into project implementation:

a. Wildlife Tree Retention: See above.

b. Maintain Stand Structure and Habitat for Snag-dependent species: No old-growth stands are proposed for harvest. The tree marking guide will assure a diversity of snag structure classes and the highest probability of long-term retention.

c. Retention of Hardwood Trees: To maintain forest species diversity and wildlife habitat, aspen and birch trees will not be harvested. If trees of these species needed to be cut for safety reasons, they will remain on site for coarse-woody debris and long-term site productivity.

d. Slash Piles: See above.

e. Prescribed burns: Helicopter pilots and burn bosses will be briefed prior to ignition regarding peregrine falcon nest locations and a route will be identified that avoids known nests.

f. Botany: Surveys have been conducted for plants of concern. However, if a population or individual is located during any phase of implementation special avoidance provisions in the contract will be invoked to ensure protection.

- **Fisheries and Aquatics**

Guidelines for riparian buffers as described in detail in the Fisheries analysis in Chapter 3 of the DEIS will be following during project implementation.

Treatment area boundaries have been identified to exclude the RHCA (there are no activity units that overlay RHCA areas). RHCA widths are as follows:

a. Fish Bearing Perennial Streams - 300 feet from the edge of both stream channel banks.
b. Non Fish Bearing Perennial Streams – 150 feet from the edge of both stream channel banks;
c. Ponds, Lakes, Reservoirs, Wetlands greater than 1 acre – 150 feet from the edge of the riparian vegetation or seasonally saturated soil;
d. Seasonally flowing or intermittent streams and wetlands less than 1 acre – 50 feet slope distance.

To minimize potential sediment delivery to fish habitat, road work in live channels will require mitigation measures to minimize potential sediment delivery to fish habitat. This will include limiting work to the July 15th to September 1st construction window or when channels are dry.

Pilgrim EIS Access Management Plan

MAP INDEX	RD #	LOCATION	ACTION TO TAKE	TIMING	REASON FOR ACTION	WHO
1	2744D	MP 0.0 (Jct with NFSR 2744)	Remove Barrier	Road Construction	Harvest	Purchaser
1	2744D	MP 0.0 (Jct with NFSR 2744)	Install Gate Keep Gate Closed Nights & Weekends	Road Construction	Habitat Security for Grizzly Bear	Purchaser
1	2744D	MP 0.0 (Jct with NFSR 2744)	Install Barrier	Post Harvest Activities	Habitat Security for Grizzly Bear	Purchaser
2	2744C	MP 0.0 (Jct with NFSR 2744)	Remove Barrier	Road Construction	Harvest	Purchaser
2	2744C	MP 0.0 (Jct with NFSR 2744)	Install Gate Keep Gate Closed Nights & Weekends	Road Construction	Habitat Security for Grizzly Bear	Purchaser
2	2744C	MP 0.0 (Jct with NFSR 2744)	Install Barrier	Post Harvest Activities	Habitat Security for Grizzly Bear	Purchaser
3	2718	MP 0.0 (Jct with NFSR 149)	Remove Barrier	Prior to Harvest Activities	Harvest	Purchaser
3	2718	MP 0.0 (Jct with NFSR 149)	Install Gate Keep Gate Closed Nights & Weekends	Prior to Harvest Activities	Habitat Security for Grizzly Bear	Purchaser
3	2718	MP 0.0 (Jct with NFSR 149)	Install Barrier	Post Harvest Activities	Habitat Security for Grizzly Bear	Access Mgmt
4	2719	MP 0.0 (Jct with NFSR 149)	Remove Barrier	Road Construction	Harvest	Purchaser
4	2719	MP 0.0 (Jct with NFSR 149)	Install Gate Keep Gate Closed Nights & Weekends	Road Construction	Habitat Security for Grizzly Bear	Purchaser
4	2719	MP 0.0 (Jct with NFSR 149)	Install Barrier	Post Harvest Activities	Habitat Security for Grizzly Bear	Access Mgmt
5	2746	MP 2.2	Keep Gate Closed Nights and Weekends	During Road Construction and Harvest Activities	Habitat Security for Grizzly Bear	Purchaser
6	2214H	MP 0.0	Keep Gate Closed Nights and Weekends	During Road Construction and Harvest Activities	Habitat Security for Grizzly Bear	Purchaser
7	New Road at MP 1.3 on 2214H	MP 0.0	Install Barrier	Post Harvest Activities	Habitat Security for Grizzly Bear	Purchaser
8	2706	MP 4.5	Keep Gate Closed Nights and	During Road Construction and Harvest Activities	Big Game Security	Purchaser

ROADS PROPOSED FOR PASSIVE DECOMMISSIONING				
ROAD#	MILES		ROAD#	MILES
14710	0.20		2159A	0.19
14711	1.11		2159B	0.14
14712	0.42		2710B	0.24
14713	0.55		2710C	0.41
14714	0.34		2710M	1.38
14715	0.18		2710P	0.85
14716	0.11		2710R	1.25
14717	0.12		2710S	0.94
149C	0.81		2710T	0.64
2111B	0.13		2710W	0.29
2111C	0.14		2710X	0.27
2111D	0.13		2751	1.29
2111E	0.21		2751A	0.16
2111F	0.12		2756	0.83
2111G	0.23		2756A	0.14
2111H	0.13		2756B	0.19
2111J	0.10		2756C	0.17
2113	1.79		2756D	0.14
2113A	0.47		2756E	0.12
2113B	0.75		2770A	0.30
2158	0.97		2770B	0.13
2158A	0.54		2770C	0.17
2158B	0.15		2770D	0.34
2158C	0.21		2770E	0.10
2159	0.43			

Appendix 4. *Monitoring for the Pilgrim Creek Timber Sale Project*

RESOURCE	OBJECTIVE	TIMING	METHODOLOGY	RESPONSIBLE
Fire and Fuels/ Wildlife/Soils	Fuel Management in harvested areas and retention of coarse woody material	Post harvest review, pre-planting exam or post fuel treatment exam.	Evaluate fuel reduction needs during post-harvest inspection to establish a site-specific burn plan. Retention of large downed woody debris, measured in tons per acre, will be incorporated into the prescribed fire parameters to meet soil and site productivity needs. The amount of this material left on-site is determined by the associated Vegetative Response Unit (VRU). Photographic series guides will be used for pre and post fuel treatment monitoring the retention of coarse woody material.	Sale Administrator, District Fuels Specialist, District Silviculturist
Water/Fish Habitat	Implement Riparian Habitat Conservation Areas (RHCAs)	Prior to advertisement of timber sale(s).	Monitor application of RHCAs, during timber sale layout through the direct measurement of harvest unit boundaries adjacent to RHCAs.	Hydrologist/ Fisheries Biologist/Sale Preparation
Water/Fish Habitat	Implement and determine effectiveness of applicable Best Management Practices (BMP's)	At the end of each operating season.	This will be accomplished by completing a visual BMP inspection and compiling a report and/or sale inspection reports for each units harvested.	ID Team/Sale Administrator
Water/Fish Habitat	Monitor road drainage	On-going throughout pre-sale, sale and post sale activities. After unusual hydrologic occurrences.	Check for visually, record road drainage problems (slumping, plugged culverts, etc.) and correct where possible.	All District personnel
Water/Fish Habitat	Monitor changes in stream flow for Pilgrim Creek.	Peak flows / Various Stages	Measure discharge and stage to maintain rating curve for Pilgrim Creek.	District Hydrologist
Roads	Road construction and reconstruction	During road construction and reconstruction activities.	On-site inspections would be conducted as a normal part of contract administration to ensure compliance with contract specifications and BMPs.	Engineering
Reforestation (Harvest Units)	Determine status of regeneration	First through third and, if necessary, 5th year following initiation of regeneration.	Monitor stocking and status of regeneration (planted or natural stands using walk-through and standard plots. Follow R1 stand procedures.	District Reforestation Technician
Reforestation (Post-Harvest Evaluation)	Verify or modify the next treatment need.	Following acceptance of log utilization, prior to initiating of any post-harvest work.	Walk-through survey. Site visits may result in changes in site preparation, reforestation, slashing, or TSI work.	District Silviculturist/Fuels Specialist
Timber	Compliance with Timber Sale Contract	During the life of the timber sale contract.	This monitoring would occur as a fundamental component of timber sale administration. Minor contract changes or modifications would be enacted when necessary to meet objectives and standards on the ground, when agreed to by the Forest Service and timber sale purchaser.	Sale Administrator
Recreation	To ensure maintenance of trails	Post harvest and/or prescribed burning.	Walk trail to observe trail condition and evaluate any need for maintenance or rehabilitation.	District Recreation Specialist
Noxious weeds	Monitor for new invasions of noxious weeds in skid trails and landings.	Pre-harvest and following timber sale activities	Field survey and inspection.	District personnel and Noxious Weed Coordinator

RESOURCE	OBJECTIVE	TIMING	METHODOLOGY	RESPONSIBLE
Noxious weeds	Assess the effectiveness of reseeding post harvest and control/eradication of new infestations	Post harvest and subsequent growing seasons depending of the success of reseeding.	Field survey and inspection following harvest and reseeding, during growing season.	District personnel and Noxious Weed Coordinator
Wildlife	Monitor effectiveness of road closures to maintain wildlife security	During harvest activities and post harvest	Inspect seasonal closures to ensure they are operable and effective.	District personnel and District Wildlife Biologist
Wildlife	Monitor compliance with Forest Plan snag guidelines and effectiveness of snag-retention strategy in MA10 for harvest unit 40 in Alternatives 2 & 4.	Post-harvest	Determine the number, condition, and species of snags and replacement snags left in regeneration harvest unit in MA10 for Alternatives 2 and 4. Specifically, MA 10 areas within Unit 40 to evaluate effectiveness of the snag retention strategy. Unit 40 utilizes a skyline yarding system and includes 15 acres of MA 10 under Alternative 2 and 6 acres of MA 10 under Alternative 4.	District Wildlife Biologist
Old Growth	Monitor the effectiveness of treatment in maintaining, restoring, or developing old growth characteristics in selected natural fuels burn units.	Post burning.	On-site evaluation to determine if treatment objectives were met following KNF Old Growth Implementation Monitoring Strategy (7/1/07). Evaluation of each stand designated as effective old growth to determine if it still functions as old growth based on the Regional definition for old growth in western Montana. If necessary to meet Forest Plan standards, other late-successional stands in the drainage would be designated as old growth. Replacement old growth stands would be evaulated using the same protocol to evaluate progress towards old growth as a result of burning.	District Wildlife Biologist/ Fuels Specialist
Roadless Area	To determine if Roadless Area character is maintained after treatment of natural fuels through prescribed burning.	After prescribed fire activities are complete in natural fuels treatment areas.	Evaluate natural fuels burning for possible effects to wilderness attributes. These attributes are described in the Inverntoried Roadless Areas section in Chapter 3 of the DEIS and include natural integrity, apparent naturalness, remoteness, solitude, special features, and manageability/boundaries. The attributes with potential to be affected by prescribed burning are natural integrity and apparent naturalness. Apparent naturalness would be evaluated by ocular estimation of the visual character of the area. Natural integrity would be measured by the degree to which prescribed burning objectives are met in prescribed burn units. Site-specific burn plans would be prepared for each burn unit and are tiered to VRU-specific objectives regarding overstory and understory mortality.	Recreation Specialist/Fuels Specialist

KOOTENAI FOREST PLAN
LAND AND RESOURCE MANAGEMENT PLAN

Pilgrim Creek Project-Specific Amendment

Within the *Pilgrim Creek* Project Area, the Kootenai National Forest Plan, page III-49, in Management Area (MA) 12 is modified for the Facilities standard #3, to suspend the requirement that roads open to public use will not exceed an average density of 0.75 miles per square mile within the contiguous MA This modification applies only to the Project Area that is located on the Cabinet Ranger District and shown on the attached map. This amendment would be in place only during the life of the project.

The current standard for Management Area 12,Facilities Standard #3 (Forest Plan, Vol. 1, p. III-51) is:

"Roads open to public use will not exceed an average density of 0.75 miles per square mile within the contiguous MA."

The Forest Plan states "If it is determined during project design that the best way to meet the goals of the Forest Plan conflicts with a Forest Plan standard, the Forest Supervisor may approve an exception to that standard for that project."

This project-specific amendment allows achievement of the overall Forest Plan goal for this Management Area, which is to "maintain or enhance the habitat effectiveness for non-winter big game habitat, and produce a programmed yield of timber. The major species include black bear, grizzly bear, elk, moose, whitetail deer, and mule deer" (Forest Plan, Vol. 1, p. III-48). The amendment allows for a concentration of management activities both temporally and spatially to minimize the effects of displacement on big game.

Project-specific amendments must comply with the National Environmental Policy Act procedures. Compliance with these procedures and rationale for this project-specific amendment are contained in the *Pilgrim Creek* DEIS and associated project record.

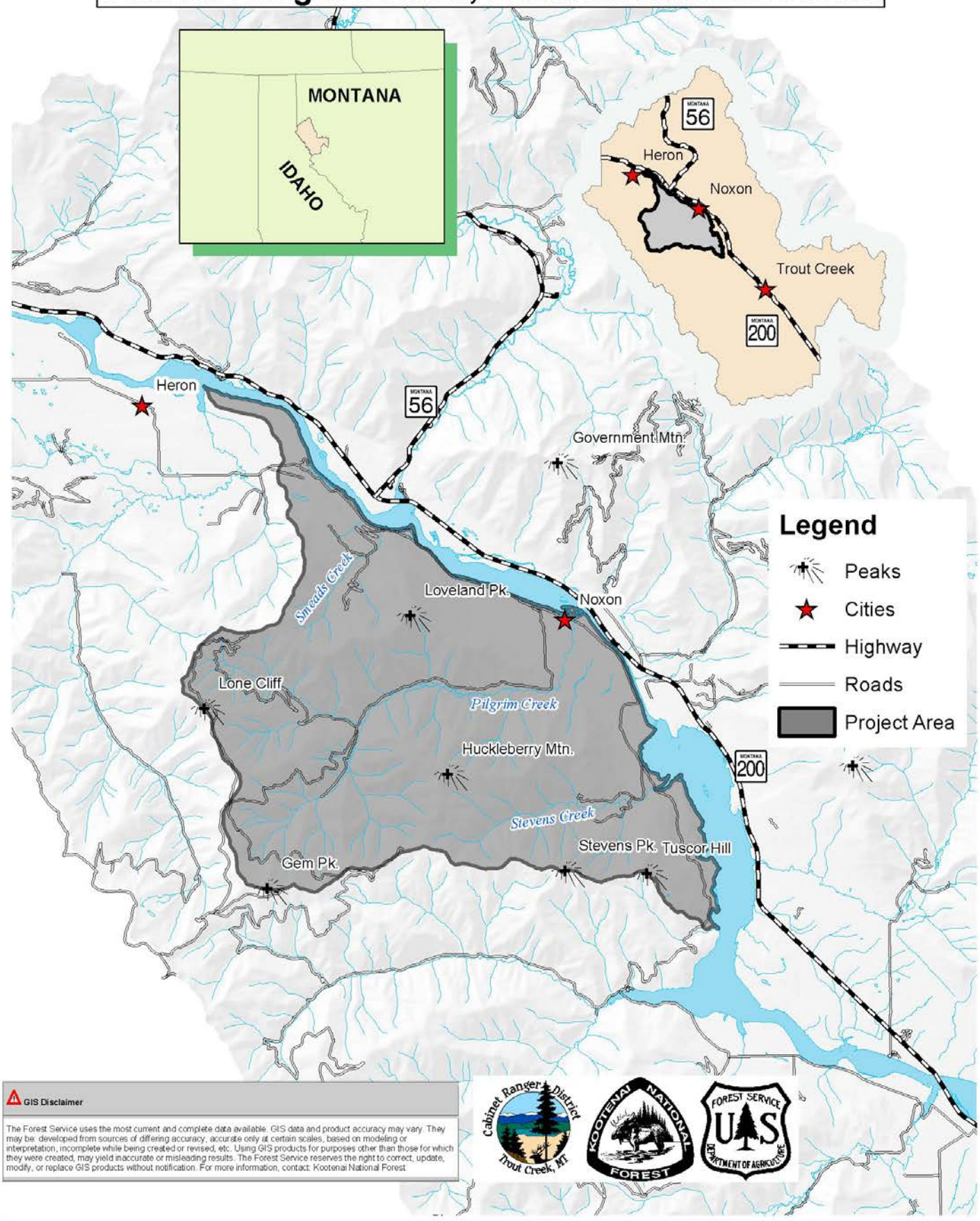
Approval Date: 4/8/13

###

Maps

Pilgrim Creek Project Area

Cabinet Ranger District, Kootenai National Forest



GIS Disclaimer

The Forest Service uses the most current and complete data available. GIS data and product accuracy may vary. They may be: developed from sources of differing accuracy, accurate only at certain scales, based on modeling or interpretation, incomplete while being created or revised, etc. Using GIS products for purposes other than those for which they were created, may yield inaccurate or misleading results. The Forest Service reserves the right to correct, update, modify, or replace GIS products without notification. For more information, contact: Kootenai National Forest

Pilgrim Timber Sale Project: Alternative 3